



---

## Audit and Enforcement Update January 2000

---

### Audit Findings for January 2000:

DEP issued twelve (12) Notice of Audit Findings (NOAFs) in January 2000. Two (2) NOAFs did not require further assessment/fieldwork. Ten (10) audits found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in January include:

1. Following an audit of an Immediate Response Action (IRA) and Class A-1 Response Action Outcome (RAO) Statement for an 85-gallon release of No. 2 fuel oil, DEP issued a Notice of Audit Finding (NOAF)/Notice of Noncompliance (NON) that identified violations in the actions audited. The release resulted from a leaking above ground storage tank (AST) at a church property. A septic system and private well improve the property. Groundwater at the site was classified as GW-1/GW-2/GW-3, and soil as S-1/S-2/S-3.

An IRA was conducted consisting of removal and disposal of 18 cubic yards of oily soil excavation and 600 gallons of oily water. Soil excavation was discontinued when the excavation boundaries extended to the footing of the on-site building. Confirmatory soil samples were taken from the bottom and sidewalls of the excavation. Information on the depth of the sample collection points or the moisture content was not provided. Exceedences of Method 1, S-1/GW-1 standards were indicated in the analytical results. Two water samples were also taken from the tap water connected to the private well, and submitted for laboratory analysis of EPH and PAHs. Although results were "non-detect" for the targeted compounds, DEP noted that the method detection limits exceeded the GW-1 standards for two of the compounds. DEP also noted that neither the construction details nor the location of the private drinking water well were included in the submittals.

A new LSP-of-Record subsequently collected a soil sample from the bottom of the backfilled excavation where EPH and PAH analysis results were reportedly "non-detect." An undisclosed number of piezometers at undisclosed locations were installed. A Class A-1 RAO was filed in August 1999. The RAO stated that four previous exceedences of the GW-1/S-1 Standards were not representative of the release, and indicated that they were not included in the Method 1 Risk Characterization. Using only the "non-detect" soil and tap water results, the LSP concluded that the site conditions did not exceed background and that a Class A-1 RAO was justified. During the audit, DEP also noted that the extent of the release, background conditions, and site features were not adequately described and that the potential extent of the release in groundwater was not delineated by installing and sampling monitoring wells. The site plans did not include the locations of the piezometers, the location of the on-property

private drinking water well, or any other nearby private wells, if any, the boundaries of the property, or the area of the disposal site subject to the RAO.

Identified violations of the MCP requirements include:

- a. failure to provide assessments and evaluations adequate to characterize risk,
- b. failure to delineate the boundaries of the RAO,
- c. failure to provide all documentation to support the RAO, and,
- d. failure to dispose of stockpiled soils within 120 days.

In addition, DEP noted that the piezometers did not meet the criteria for viable monitoring wells outlined in WSC-310-91 (Standard References for Monitoring Wells) and should be decommissioned to prevent potential migration. An Audit Follow-up Plan was required, for delineating the full extent of (groundwater) contamination, and direction of groundwater flow, characterizing potential risk to human health from consuming the groundwater, providing appropriate analytical results from the on-site well, and providing additional details for site plans. This information will be used to confirm, revise or retract the submitted RAO Statement.

(Berkley, 4-14448, NON-SE-00-3A-001, January 10, 2000)

2. Following an audit of an IRA and Class A-1 RAO for a 100-gallon spill of liquid asphalt sealer, DEP issued a NOAF/NON that identified violations in the actions audited. Approximately 80 gallons of the release were reportedly confined to pavement, and 20 gallons ran off the pavement, down a 15-foot embankment, and into vegetated wetlands, impacting approximately 20 square feet of the wetlands.

DEP orally approved an IRA plan to excavate and recycle up to 10 cubic yards of soil at the time of notification. Remedial actions included containment through the placement of hay bales around the release area, soil removal, and product recovery. Following initial soil excavation in the wetland, soil samples were taken and analyzed for THP, VOCs, and SVOCs. One "downgradient" soil sample was taken to determine background. Later, a water sample was taken from the "standing groundwater" and submitted for VOC and SVOC analysis and petroleum hydrocarbon scan. Upon review of the analytical results indicating exceedences of GW-3/S-1 standards, additional soil was removed from the impacted wetlands and two more soil samples were taken for soil analysis; results did not reveal any "coal tar" range hydrocarbons, but gasoline range hydrocarbons were detected in both samples. DEP noted that VOC and SVOC results were not submitted until they were requested during the audit.

The site was closed with a Class A-1 RAO, and the LSP concluded that non-detectable concentrations for "coal tar" range hydrocarbons indicated that the release had been remediated to background. During the audit site inspection, DEP staff noted that the wetland area was under standing water and indicated that the media impacted should have included soil, sediments, surface water, and groundwater, and that the assessments should have included a Method 3 Stage I Screening of the ecological receptors.

Identified violations of the MCP requirements include:

- a. violations of deadlines for submitting IRA Status reports,
- b. failure to develop sufficient site data to assess risks at the site,
- c. failure to clearly and accurately delineate the boundaries of the disposal site,
- d. failure to submit all necessary documentation to support the RAO,

- e. failure to remove remediation waste from a site within required deadlines.

DEP required an Audit Follow-up Plan, including delineation of the extent of contamination, additional sampling to characterize "background," and a discussion of impacts to sediments and surface water. DEP noted that if adequate reduction to background could not be established, a Method 3 Stage I Environmental Screening would need to be conducted. DEP also required that the Audit Follow-up Plan must include a site schematic, to scale, that would depict the RAO/site boundaries. . This information will be used to confirm, revise or retract the submitted RAO Statement.

(Rockland, RTN 4-13356, NON-SE-3A-002, January 20, 2000)

3. Following an audit of a Class A-2 RAO, DEP issued a NOAF)/NON that identified violations in the actions audited. The site is located at a Department of Public Works (DPW) facility. An on-site septic system and a private potable well service the facility. The well is located within 500 feet of the site and was reported to be hydrologically upgradient of the site. Wetlands and a surface water body are located approximately 100 feet from the site.

In 1996, one 5,000-gallon diesel underground storage tank (UST) and two 500-gallon gasoline USTs were removed from the facility. DEP received notification (72 hr) of a release as established by measurement of greater than 100 parts-per-million (ppm) by volume of total organic vapors in the headspace of a soil sample collected from the UST excavation. An Immediate Response Action (IRA) approval was granted for the excavation of up to 50 cubic yards of soil and installation of a concrete drywell. Two observation wells were installed at the east and west end of the excavation as it was being backfilled. In-situ bioremediation activities were performed as part of the IRA. The site was Tier Classified as a Tier II site in June 1997.

A Class A-2 RAO with a supporting Method 1 risk characterization was filed in October 1997. The risk characterization indicated that applicable S-1 soil standards and GW-2 and GW-3 groundwater standards had been achieved and a level of No Significant Risk was present at the site. The LSP concluded that categorization and achievement of GW-1 groundwater standards was not applicable to the site (based on the presence of the private well within 500 feet) because "the well had been sampled for VOCs via USEPA Method 524.2 on June 25, 1996. There were no detectable VOCs in the private well at a detection limit of 0.5 ug/l. Therefore, due to the absence of contamination in the private well it has been demonstrated that there is no hydrological connection." The MCP at 310 CMR 40.0932(d) 2 states "... The absence of site contaminants in the private well does not, by itself, constitute such a demonstration."

The identified violation of MCP requirements includes failure to support the selected groundwater category. DEP is requesting that additional data be submitted supporting the assertion of no hydrogeological connection (including, but not limited to, as appropriate, the investigation and evaluation of site stratigraphic, potentiometric, and geochemical conditions, and the depth and construction of the private well) or that the RAO be amended to meet applicable GW-1 standards.

(Hubbardston, 2-11280, NON-CE-00-3006, January 24, 2000).

## Consent Orders - December 1999/January 2000

1. DEP issued a Unilateral Administrative Order (UAO) to Cumberland Farms for failing

- to complete a Phase II Comprehensive Site Assessment on the ongoing cleanup of an oil and hazardous materials release at one of its locations in Stoughton. DEP is requiring the company to delineate the extent of contamination, determine environmental and public health risks, and conduct a feasibility study of cleanup options. (RTN 4-0707 & 4-11157, UAO-SE-99-3P-002, December 2, 1999)
2. DEP entered into an Administrative Consent Order with Penalty (ACOP) with C.K. Smith & Co., the owner/operator of Bourne Texaco. C.K. Smith & Co. failed to apply in a timely way for an extension of its permit for cleaning up contamination on its property. A \$1,000 penalty was assessed. (RTN 4-0576, ACOP-SE-99-3P-003, December 3, 1999)
  3. DEP entered into an ACOP with Berkshire Custom Coating Co. of Pittsfield for MCP violations. Berkshire Custom Coating Co. failed to perform assessment work and to meet regulatory deadlines. The company was assessed a penalty of \$2500 and agreed to complete response actions. (RTN 1-0144, ACOP-WE-99-3010, December 15, 1999)
  4. DEP entered into an ACOP with CG Realty Corp. of Worcester for MCP violations. CG Realty Corp failed to notify DEP of a release of oil and hazardous material within 120 days. CG Realty Corp. was assessed a \$9,000 penalty. (RTN 2-12015, ACOP-CE-99-3024, December 21, 1999)
  5. The Office of the Attorney General, on DEP's behalf, entered into a Consent Decree with Global Petroleum Corp. of Waltham to settle complaints that it failed to report a spill of thousands of gallons of gasoline from its bulk fuel storage facility in Revere. The spill entered storm drains and eventually the Chelsea River. Global agreed to pay \$500,000 in civil penalties and to donate another \$500,000 to the Massachusetts Environmental Trust. The latter payment will support efforts to clean up stormwater discharges to brooks in Revere. (RTN 3-14835, December 22, 1999)
  6. DEP entered into an ACO with the City of Newton to address waste site cleanup violations at various sites, including a former municipal incinerator on Rumford Avenue. In addition to taking the necessary steps to return to compliance, Newton will conduct an environmental compliance training program for city officials. (RTN 3-14016, ACOP-NE-99-3R001, December 23, 1999)
  7. DEP entered into an ACOP with the Town of Whitman for violating waste site cleanup regulations during a building project, thus placing the health of workers at potential risk. A penalty of \$3,750 was assessed. The town will also submit an Activity and Use Management Plan for the property. (RTN 4-11159, ACOP-SE-00-3A-006, January 13, 2000).
  8. DEP issued a Notice of Intent to Assess a Civil Administrative Penalty in the amount of \$1,000 to Bell Atlantic for proceeding with cleanup work at a contaminated site in Foxborough before seeking a Tier I permit extension and without submitting required reports. (RTN 4-1164, PAN-SE-00-3P-001, January 13, 2000).

[\[List of Audit and Enforcement Updates\]](#) [\[BWSC Home\]](#)  
[\[Other DEP Enforcement Actions\]](#) [\[MA DEP Home\]](#) [\[Search\]](#)

Updated: February 18, 2000



---

## Audit and Enforcement Update February 2000

---

### Audit Findings for February 2000:

DEP issued seven Notice of Audit Findings (NOAFs) in February 2000. Seven NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in February include:

1. Following an audit of a Downgradient Property Status (DPS) Opinion submittal, DEP issued a Notice of Audit Finding (NOAF)/Notice of Noncompliance (NON) that identified violations in the actions audited.

The downgradient property is a commercial shopping center. The property is located within an Interim Wellhead Protection Area (IWPA) for a municipal water supply well. DEP was notified of groundwater contamination on the property in 1992. The site was classified as Tier IB in 1993. Assessments had identified tetrachloroethylene (PCE) in groundwater samples collected from the west side of the property and had indicated that the on-site septic system may have been the source of the PCE. In addition to PCE, benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as methyl tert-butyl ether (MTBE) were detected in groundwater samples at the site. In May 1997, DEP received a DPS Opinion, which attributed the gasoline-related contaminants of BTEX and MTBE to upgradient gasoline station sources. The upgradient gasoline stations were also identified as the source of PCE contamination. DEP agrees that the DPS Opinion was supported for the release of gasoline contamination detected on the commercial property. However, DEP finds that insufficient information was provided to support the DPS Opinion that PCE originated from a source located upgradient of the property. PCE has been consistently detected in groundwater on the site and specifically downgradient of the septic tank area. PCE has only been detected once at an upgradient location on the site and at a much lower concentration than in the downgradient location.

Identified violation of the MCP requirements includes a failure to base the DPS Opinion on investigative and assessment actions of sufficient scope and level of effort to conclude that the criteria of 310 CMR 40.0183(2)(b) have been met. Since there appears to be two different releases on the site, DEP considers the DPS Opinion valid for the upgradient gasoline source. However, the DPS Opinion is not considered valid for the PCE source. DEP is requesting an additional response action to characterize the release, evaluate risks, and evaluate the need for remedial actions in consideration of a Permanent or Temporary solution. Deadlines were established for a Phase II Scope of Work (SOW), a Phase II - Comprehensive Site Assessment, and if applicable, a Phase III - Remedial Action Plan (RAP).

(Westwood, 3-3995, NON-NE-00-3A001, February 1, 2000)

2. Following an audit of an Immediate Response Action (IRA) and Class A-1 Response Action Outcome (RAO) for a release of between 200 and 700 gallons of spent liquid sulfuric acid, DEP issued a NOAF/NON that identified violations in the actions audited.

The release originated from transfer piping associated with an aboveground storage tank, which was contained within an earthen dike. DEP orally approved an IRA plan to neutralize the acid by applying lime and testing soil pH. Approximately 5 tons of lime was added to the soil within the diked area. Collected pH measurements ranged from pH 6.0 to 7.0. A Class A-1 RAO was submitted: the LSP concluded that response actions were successful and that no further actions were necessary. During the audit site inspection, DEP staff was informed that contamination was located from ground surface to 4 feet in depth. The "foaming" action effect from the lime and acid mixing helped delineate the extent of contamination. A litmus paper test was used to collect pH measurements in soil. The results of the paper test were compared using a color-to-color chart provided in the test kit.

Identified violations of the MCP requirements include:

- a. failure to employ investigative practices that are scientifically defensible, and of a level of precision and accuracy commensurate with the intended use of the results of such investigations (the litmus paper test is not a method that, by itself, is conclusive to support an RAO);
- b. failure to develop and support the RAO with assessments and evaluations of sufficient scope, detail, and level of effort, and that are commensurate with the nature and extent of release to characterize risk (the extent of contamination was not delineated to a sufficient degree);
- c. failure to correctly categorize groundwater as GW-1;
- d. failure to clearly and accurately delineate the area subject to the RAO;
- e. failure to submit an IRA Plan within 60 days of providing notification of the release.

DEP requested adequate delineation of the extent of contamination, collection and laboratory analysis of additional soil samples for pH, correct categorization of groundwater, and submission of a site diagram that accurately delineates the area subject to the RAO.

(Adams, RTN 1-13055, NON-WE-00-3001, February 10, 2000)

3. Following an audit of an IRA and comprehensive response actions, DEP issued a NOAF/NON that identified violations in the actions audited.

The site is located at a commercial property formerly improved as a gasoline dispensing facility. An on-site potable well services the property. The site is located within an IWPA for a non-community public supply well and additional private potable supply wells are located within 500 feet of the site. In 1992, two 2,000-gallon gasoline underground storage tanks (USTs) were removed (a third UST was removed in 1986). DEP received notification of a release in 1992. A Licensed Site Professional (LSP) Evaluation Opinion identified the requirement for further response actions in 1997. Five private potable water supply wells and one transient non-community public water supply well were sampled each for volatile organic compounds (VOCs), MTBE, and lead in March 1998 as part of an IRA. MTBE was detected at a concentration of 29 parts per billion (ppb) in one of the private wells. VOCs were not detected in the remaining wells during this sampling event. An IRA Completion Statement

was submitted in August 1998. The on-site potable well was sampled for VOCs in August 1999. VOCs were not detected in the on-site well during this sampling event. Results of groundwater sampling from on-site overburden and bedrock monitoring wells in August 1999 detected gasoline-related contaminant concentrations in exceedance of GW-1 Method 1 risk characterization standards.

DEP concluded that a single round of sampling from private potable water supply wells does not meet the IRA Completion requirements. Identified violations of the MCP requirements include:

- a. failure to meet the IRA Completion requirement to ensure the stabilization of site conditions as per 310 CMR 40.0427(1);
- b. failure to continually assess and evaluate for IRA conditions per 310 CMR 40.0411(7); as well as
- c. failure to meet response action deadlines for a Phase I report, Tier Classification, a Phase II SOW, a Phase II report, and, if applicable, a Phase III RAP.

DEP requested an IRA Plan for regular periodic monitoring of private potable water supply wells for volatile petroleum hydrocarbons (VPH) and target analytes within the site vicinity, and an Audit Follow-up Plan to address violations relative to completing the Phase II SOW, the Phase II report, and the Phase III RAP, including proposed submittal deadlines for DEP approval.

(Princeton, 2-00951 & 2-12073, NON-CE-00-3007, February 22, 2000).

## **Enforcement - February 2000**

1. DEP entered into an Administrative Consent Order (ACO) with Northampton Housing Authority (NHA) of Northampton for violations of the MCP. NHA failed to perform comprehensive response actions and to meet regulatory deadlines. A suspended penalty of \$7,500 was assessed. NHA agreed to complete necessary comprehensive response actions. (RTN 1-0866, ACO-WE-00-3002, February 1, 2000)
2. DEP entered into an Administrative Consent Order (ACO) with A.R. Sandri, Inc. of Greenfield for violations of the MCP. A.R. Sandri, Inc. failed to provide timely notification of a release, and failed to comply with proposals and specifications contained in a Release Abatement Measure (RAM) Plan. A suspended penalty of \$5,000 was assessed. A.R. Sandri agreed to comply with MCP requirements. (RTN 1-13066, ACO-WE-00-3E001, February 7, 2000)
3. DEP entered into a Unilateral Penalty Assessment Notice (PAN) with C.K. Smith & Company, Inc., the owner/operator of a Mobil station in Westport. C.K. Smith & Co. failed to apply in a timely way for an extension of its permit for cleaning up contamination on its property. A \$1,000 penalty was assessed. (RTN 4-1049, PAN-SE-00-3P-005, February 10, 2000)

## **Helpful Hint**

DEP wishes to reiterate that knowledge of a new 2-hour or 72-hour release/threat of release condition is always required at existing sites. The Department has become aware of cases where the LSP advised the client that notification to DEP of a new condition, specifically the presence of more than a 1/2 inch of non-aqueous phase liquid (NAPL) in on-site monitoring wells, was not required.



In these cases, notification of a 72-hour release condition was provided to DEP when the 100 parts per million headspace threshold was exceeded after the USTs were removed. Subsequent installation of monitoring wells discovered the presence of more than a 1/2 inch of NAPL in the wells.

DEP previously addressed this issue on two occasions, in November 1993 and June of 1994 (See the [MCP Master Question & Answer Compilation](#), Question 24).

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: March 27, 2000



---

## Audit and Enforcement Update March 2000

---

### Audit Findings for March 2000:

DEP issued eight (8) Notice of Audit Findings (NOAFs) in March 2000. Five (5) NOAFs did not require further assessment/fieldwork. Three (3) audits found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in March include:

1. Following an audit of a Class A-2 Response Action Outcome (RAO) Statement, DEP issued a Notice of Audit Finding (NOAF)/Notice of Noncompliance (NON) that identified violations in the actions audited. The site is located within an unpaved vacant lot formerly used as a gasoline sales and service facility. The site is located within a Potentially Productive Aquifer. The site was assessed by installing five soil borings/monitoring wells that identified the presence of separate-phase petroleum (in two monitoring wells in 1994). Notification of the separate-phase condition resulted in DEP oral approval to conduct assessment and an Imminent Hazard evaluation. An IRA Completion Statement submitted in 1995 indicated that separate-phase product was recovered using a "soak-ease" petroleum recovery system installed within one of the monitoring wells. A ground penetrating radar survey did not locate any underground storage tanks on the property.

In 1996, an in-situ bioremediation Release Abatement Measure (RAM) was initiated to reduce petroleum concentrations in soil and groundwater to below Method 1 S-1 and GW-1 standards. From 1996 to 1997, soil and groundwater monitoring results indicated that elevated levels of both total petroleum hydrocarbons (TPH) and volatile petroleum compounds (VOC) remained; it is not clear if bioremediation had any affect on the residual contamination. Data collected during the RAM was not used in the risk characterization. In 1997, DEP received a Class A-2 RAO supported by a Method 1 risk characterization. Groundwater was categorized as GW-2 and GW-3. Soil was categorized as S-1, S-2, and S-3. Based on total dissolved solid measurements, groundwater was considered to be brackish and not categorized as GW-1. During the 1999 audit site inspection, approximately 0.25 inches of separate-phase product was noted in two of the monitoring wells.

Identified violations of MCP requirements include:

- a. failure to conduct an IRA in accordance with any oral or written approval (the Imminent Hazard evaluation was not conducted);
- b. failure to make timely IRA and RAM Status report submittals;
- c. failure to meet comprehensive response action deadlines for Phase II and if applicable

- Phase III reports;
- d. failure to identify the extent of contamination;
  - e. failure to meet the RAO performance standard (possible continuing source of contamination on-site); and
  - f. failure to evaluate the feasibility of reducing contaminant concentrations to levels that achieve or approach background.

DEP requested retraction of the RAO and submittal of a Tier II Classification Extension for further investigation and assessment of the site, inclusive of defining the extent of contamination, revising the risk characterization, and evaluating background.

(Danvers, 3-10524, NON-NE-00-3A005, March 3, 2000)

2. Following an audit of an Immediate Response Action (IRA) and Class A-1 RAO Statement filed for a release of No. 6 fuel oil, DEP issued a NOAF that found the audited actions comply with applicable requirements of the MCP, and no violations or deficiencies were identified. In September 1998, DEP received a 2-hour notification of a sudden release of approximately 45 gallons of No. 6 fuel oil from a fuel line to a concrete basement (boiler room) trench. The trench runs to a sump that discharges to an outside drain. IRA activities included fuel containment and use of absorbent material to remedy the release. The release impacted two catch basins and one storm drain outside the boiler room, but was prevented from travelling farther through the drainage system to a nearby brook. In November 1998, DEP received a Class A-1 RAO.

(Attleboro, 4-14186, March 15, 2000)

3. Following an audit of IRAs and Comprehensive Response Actions (Phase II, Phase III, and Phase IV), DEP issued a NOAF/NON that identified violations in the actions audited. The site is located at a bus storage, service, and maintenance facility. The site was used as a maintenance and storage facility of railcars and buses for approximately 100 years. DEP received initial notification of a release condition at the facility in 1990 (RTN 1-01063). Response actions documented three areas of concern at the site: 1) the Bus Maintenance Facility, 2) Bus Service Building, and 3) Bus Lube Room. IRAs were performed in response to various releases reported for the site under several additional release tracking numbers (RTNs 1-10137, 1-10362, 1-10827, 1-12614).

Bus Lube Room - several releases of lubricating oil and hydraulic oil occurred to subsurface soils and to groundwater from leaking subsurface piping and hydraulic lifts. Investigations documented elevated levels of TPH in soil and the presence of 1.5 feet of separate-phase petroleum product.

Bus Service Building - a refueling accident damaged subsurface fuel supply piping. Up to 150 cubic yards of soil were excavated. Post-excavation soil sampling indicated concentrations of TPH exceeding Upper Concentration Limits (UCLs) in three of five locations. Separate-phase product was detected up to 2 feet in depth in two microwells installed in the area of release.

Bus Maintenance Facility - historical contamination was detected in both soil and groundwater. An IRA conducted for a 200-gallon release of hydraulic oil resulted in the excavation of 36 cubic yards of soil. Post-excavation sampling results were not provided in the IRA Completion report for this release (RTN 1-12614). A review of soil disposal characterization data indicated an elevated presence of cadmium on the site.

A Method 3 risk characterization was conducted on the following exposure pathways: inhalation of airborne particles, incidental ingestion of soil, and dermal contact with soil for three possible receptors: a maintenance worker, and adult resident, and a child. The risk characterization concluded that the contamination at the site did not pose a risk to human health or the environment, however the presence of TPH exceeding UCLs in soil and groundwater was presented as an unacceptable risk to Public Welfare. DEP notes that several assumptions made in the risk characterization do not provide a conservative estimate of risk posed by the site, such as using Method 1 standards to "screen out" from the Method 3 evaluation those potential contaminants of concern present at concentrations less than applicable Method 1 standards; ruling out potential exposures to vapors volatilizing from contaminated groundwater; and not evaluating dermal contact with groundwater under an excavation scenario.

The Phase III-Remedial Action Plan (RAP) concluded that product-only recovery and intrinsic bioremediation would be employed to address groundwater, while soil would be addressed by excavation and implementation of an Activity & Use Limitation. The Phase IV-Remedial Implementation Plan (RIP) noted that soil excavation was not performed due to subsurface obstructions.

Identified violations of MCP requirements include:

- a. failure to complete a Method 3 risk characterization that provides a conservative estimate of the potential exposures of each receptor,
- b. failure to provide an IRA Completion report that includes all data obtained during the implementation of the IRA,
- c. failure to achieve either a RAO or Remedy Operation Status (ROS) within 5 years of the date of Tier Classification,
- d. failure to comply with response action submittal deadlines inclusive of IRA Plans, IRA Status Reports, and the Phase IV Report,
- e. failure to meet Interim Deadlines for submittal of information, and
- f. failure to remove all remediation waste from the site before the IRA was completed.

DEP requested a revised risk characterization, submittal of IRA post-excavation sampling results (1-12614), and submittal of a RAO, ROS, or Tier II Classification Extension submittal.

(Springfield, 1-01063, NON-WE-00-3A041, March 24, 2000).

## **Enforcement - March 2000**

1. DEP entered into an Administrative Consent Order with Penalty (ACOP) with Servitank Inc. of Canada for a September 1999 spill of approximately 700 gallons of sulfuric acid in Colrain, which caused a significant fish kill along a tributary of the Deerfield River. Servitank arranged for the transport of the material to the release site. A penalty of \$9,000 was assessed. Servitank agreed to verify its emergency response and driver training procedures as they relate to hazardous materials. (RTN 1-13086, ACOP-WE-99-3011, March 7, 2000)
2. DEP issued a Denial Notice to Mobil Oil Corporation (Mobil) of New York, NY for subsequent Tier II Extension requests at up to five sites where permanent or temporary solutions have not yet been achieved. The sites were previously granted Waiver of Approvals and DEP believes that insufficient progress has been made to warrant approving continued response actions. Administrative Consent Orders will be established for these sites. (Acton 2-0253, Holden 2-0753, Hopkinton 2-0807, Westborough 2-0885, and Worcester 2-0818,

March 10, 2000)

3. DEP entered into an Administrative Consent Order (ACO) with Mobil Oil Corporation (Mobil) of New York for failure to complete Comprehensive Response Actions in accordance with the MCP. Mobil agreed to complete applicable Comprehensive Response Actions (Phase II, Phase III, Phase IV, Phase V) toward a Response Action Outcome within 18 months. (Groton, RTN 2-00767, ACO-CE-00-3010, March 14, 2000)
4. DEP entered into an Administrative Consent Order with Penalty (ACOP) with Royal Paving Construction, LTD of Ludlow, MA for failure to notify the DEP of a release in accordance with the MCP. While at a landfill site in October 1999, a DEP inspector observed a release of approximately 20-gallons of hydraulic oil from a dump truck. According to Royal Paving, the release occurred in September 1999. Royal Paving did not respond to the release condition as advised by DEP. A penalty of \$2,000 was assessed. Royal Paving agreed to comply with MCP requirements and complete an IRA to address the release. (RTN 1-13148, ACO-WE-00-3001, March 20, 2000)
5. DEP entered into an ACOP with Normand Simard Transport, Inc. of Canada for a September 1999 spill of approximately 700 gallons of sulfuric acid in Colrain, which caused a significant fish kill along a tributary of the Deerfield River. Normand Simard drivers caused the release. A penalty of \$10,000 was assessed. Normand Simard agreed to verify its emergency response and driver training procedures as they relate to hazardous materials. (RTN 1-13086, ACOP-WE-00-3002, March 27, 2000)
6. DEP entered into an ACOP with Techalloy Company, Inc. of Mahwah, NJ for failure to notify DEP of a release in accordance with the MCP. A perchloroethylene distillation unit in Northampton overheated, resulting in an acrid white smoke release, which injured one employee. A penalty of \$7,000 was assessed. Techalloy agreed to comply with future MCP requirements and will improve its hazardous waste management program. (RTN 1-13053, ACO-WE-99-3009, March 29, 2000)

## Helpful Hint - DEP SERO

When a release of OHM impacts sediments and/or surface water, a Method 3 Stage 1 Environmental Screening should be completed to characterize risk. In a Stage 1 Screening, appropriate sediment and surface water sample analytical results are compared with concentrations representing "background" or "local conditions" developed by the LSP. If concentrations exceed established "background" or "local conditions", the analytical results must be compared with analogous standards, such as the NOAA Effects Range Low (ERL) sediment screening concentrations. Details concerning the use of appropriate analogous standards can be found in "Chapter 9, Method 3 Environmental Risk Characterization" of BWSC/ORS-95-141 (Guidance for Disposal Site Risk Characterization). If detected concentrations exceed Stage 1 screening levels, then a Stage II Comprehensive Environmental Risk Characterization or, additional remediation is necessary. Please note that the Risk Characterization guidance document can be [viewed on the DEP web site](#) or purchased at the State Bookstore.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]

[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]

[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: April 20, 2000



---

## Audit and Enforcement Update April 2000

---

### Audit Findings for April 2000:

DEP issued twenty-eight Notice of Audit Findings (NOAFs) in April 2000. Eighteen NOAFs did not require further assessment/fieldwork. Ten NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in April include:

1. Following an audit of a Phase II (PHII) Comprehensive Site Assessment, DEP issued a Notice of Audit Finding (NOAF)/Notice of Noncompliance (NON) that identified violations in the actions audited. The site is located within a wharf property along the Cape Cod Bay waterfront that is occupied by a retail store and gasoline sales facility.

Eight underground storage tanks (USTs) were removed from the property in 1987. The USTs contained gasoline, diesel fuel, and waste oil. Floating product was observed on groundwater within the excavation. The site was assessed by installing three soil borings/monitoring wells. Soil samples were not collected. Analysis of groundwater samples noted up to 3,500 micrograms per liter (ug/l) of benzene in one of the monitoring wells. The site was listed as a Non-Priority Confirmed Disposal Site in January 1989. In February 1998, DEP received a Phase I - Initial Site Investigation and Tier Classification. Utilizing the three previously installed monitoring wells; the site was classified as Tier II. Less than ½ inch of non-aqueous phase liquid (NAPL) was present in one of the monitoring wells in support of the classification. A PHII Scope of Work (SOW) proposed the installation of two additional monitoring wells as a comprehensive evaluation of the site. The PHII report documented installation of the two monitoring wells, collection of soil samples from each well, and exceedances of Method 1 S-1 soil standards.

DEP determined that the PHII received in February 2000 does not meet the requirements of a Phase II in accordance with 310 CMR 40.0833. Identified violations of MCP requirements include:

- a. failure to provide detailed and accurate disposal site map;
- b. failure to include and adequate investigation regarding the potential for subsurface utilities to act as preferential migration conduits;
- c. failure to adequately evaluate the potential for groundwater to be a source of vapors of oil and/or hazardous materials to indoor air;
- d. failure to identify the extent of contamination;
- e. failure to identify all reasonably likely contaminants of concern;

- f. failure to include an appropriate risk characterization;
- g. failure to complete applicable public involvement activities; and
- h. failure to complete and submit a Phase III Remedial Action Plan within a timely manner.

DEP requested completion of a Phase II SOW, a PHII Comprehensive Site Assessment and, if applicable, a PHIII RAP within 120 days.

(Plymouth, 4-0336, NON-SE-00-3A-012, April 11, 2000)

2. Following an audit of an Immediate Response Action (IRA) and Class A-1 Response Action Outcome (RAO) Statement filed for a release of No. 6 fuel oil, DEP issued a NOAF that found the audited actions comply with applicable requirements of the MCP, and no violations or deficiencies were identified.

In December 1998, DEP received a 2-hour notification of a sudden release of approximately 200 gallons of No. 6 fuel oil from a concrete tank to a paved parking lot, threatening to discharge into a nearby river. IRA activities included placement of absorbents and sand to prevent the continued migration of the oil. The oil was successfully contained on the pavement and did not impact the river. Contaminated absorbent booms and pads as well as approximately 34 tons of contaminated sand were disposed of as remediation waste under separate Bills of Lading. Drains were not impacted. Because the spill was contained to the pavement, confirmatory samples were not collected. In January 1999, DEP received a Class A-1 RAO.

(Dalton, 1-12748, April 12, 2000)

3. Following an audit of Class A-2 RAO Statement, DEP issued a NOAF/NON that identified violations in the actions audited. The site consists of an industrially zoned parcel of land occupied by a light manufacturing building. The site is located within a Zone II public water supply wellhead protection area, a Potentially Productive Aquifer (PPA) and the Town Aquifer Protection District.

In December 1995, Trichloroethene (TCE) and 1,1-dichloroethane were reported in groundwater as a result of a leaching catch basin within which cleaning solvents were reportedly discarded. A Release Abatement Measure (RAM) was initiated to delineate the presence of contamination in soil and groundwater, construct and operate a soil vapor extraction/air sparge system and to excavate the leaching catch basin. In December 1998, DEP received a RAM Completion/Class A-2 RAO report. The RAO was supported by a Method 1 risk characterization which documented that contaminants of concern (COC) identified in soil were below the applicable S-1 soil standards and that COC in groundwater were below the GW-2 and GW-3 standards.

A LSP Opinion was provided in the RAO that stated the site should not be included in the DEP approved Zone II (and therefore groundwater not be categorized as GW-1) because of professed flaws in the Zone II delineation model. The DEP noted that the MCP does not allow use of a LSP Opinion to reclassify groundwater within a DEP approved Zone II. Furthermore, the site is also located within a Potential Drinking Water Source Area (as a PPA and Town Aquifer Protection District). The identified violation of MCP requirements was failure to correctly define the groundwater category of the site as GW-1. DEP requested Tier Classification of the site, and if applicable, submission of a Class C RAO.



(Holliston, 2-11053, NON-CE-00-3012, April 25, 2000)

4. Following an audit of Class A-3 RAO Statement and Activity & Use Limitation received in November 1996, DEP issued a NOAF/NON that identified violations in the actions audited. The site is located in a mixed commercial and residentially zoned area and was formerly used as an automobile showroom, repair shop, body shop, and fuel dispensing station. The site is located within 500 feet of two private drinking water wells.

In 1988, six USTs (gasoline and fuel oil) and one waste-oil drywell were excavated and removed from the site. Confirmed releases were documented from four of the USTs and the drywell. Approximately 300 cubic yards of contaminated soils were removed from two of the tank areas and the drywell. Assessment of the site included post-excavation soil sampling, installation of seven monitoring wells, one soil boring through a basement floor, one test pit near hydraulic lifts, sampling of three nearby private wells, and one round of indoor air monitoring.

Results of the assessment documented the following:

- VOC and total petroleum hydrocarbon (TPH) contamination in post-excavation soil samples;
- VOCs detected in groundwater;
- a reading of 334 parts per million (ppm) total volatile organic compound (VOC) measurement by photoionization detector at 6 feet beneath the earthen basement floor, but no VOC or TPH detected in confirmatory soil samples at this depth (note: soil samples did not meet holding times);
- xylene present in soil adjacent to the hydraulic lifts;
- no VOC present in private well analysis by EPA 524.2 (Note: analysis did not include MTBE);
- the presence of VOC above background in indoor air.

A Method 3 risk characterization of the site was performed. Groundwater was categorized as GW-2 and GW-3, and soil was categorized as S-3. Exposure profiles were developed for a child trespasser receptor and an adult worker. Access to the site is unrestricted and exposure assumptions presumed future use as commercial. An AUL was implemented to restrict use of the site for residential purposes, as a childcare center, and as a school.

Identified violations of MCP requirements include:

- a. failure to achieve a permanent solution since soil is a continuing source of contamination which is resulting in an increase in concentrations of oil and/or hazardous material in indoor air;
- b. failure to categorize groundwater as GW-1 within 500 feet of a private drinking water well;
- c. failure to meet applicable risk characterization standards;
- d. failure to define the extent of contamination;
- e. failure to identify construction and utility workers as receptors and calculate associated cancer and non-cancer risks; and
- f. failure to identify an exposure point and associated exposure point concentrations (basement soils).

DEP requested retraction of the RAO Statement, Termination of the AUL and submittal of a Tier Classification, and, if applicable, a Tier I permit.

(Northfield, 1-0480/1-10760, NON-WE-99-3079, April 28, 2000)

## Enforcement - April 2000

1. DEP entered into an Administrative Consent Order with Penalty (ACOP) with American Fiber & Finishing, Inc. (AF&F) of Westford, MA for failure to comply with a NOAF/NON issued as a result of an MCP Audit completed in May 1999. A penalty of \$1,000 was assessed. AF&F agreed to comply with the audit findings and future MCP requirements. (Colrain, RTN 1-13086, ACOP-WE-99-3011, April 4, 2000)
2. DEP issued a Penalty Assessment Notice (PAN) to Hubbard Oil Company, Inc. of Hyannis for failure to submit a Tier IA Permit Extension application at least ninety days prior to the expiration of the permit which was signed and accepted in October 1994. A penalty of \$1,000 was assessed. (Barnstable, RTN 4-0392, PAN-SE-00-3P-002, April 11, 2000)
3. DEP entered into an ACOP with Mr. James Dreikorn of Longmeadow for failure to comply with multiple NONs issued for MCP response actions being conducted at a site in Holyoke. Mr. Dreikorn failed to comply with both preliminary and comprehensive response action requirements of the MCP. A penalty of \$3,500 was assessed. Mr. Dreikorn agreed to submit an IRA Status or Completion, a Tier II Classification Extension, a Phase II report and a Phase III Plan, if appropriate, or a Response Action Outcome. (Holyoke, RTN 1-10267, ACOP-WE-00-3006, April 20, 2000)
4. DEP entered into an ACOP with New England Central Railroad, Inc. (NECR) of Saint Albans, VT for failure to notify the DEP of a release within the timeframes set forth under the MCP. A penalty of \$5,000 was assessed. NECR agreed to comply with notification requirements of the MCP and the requirements to implement Immediate Response Actions. (Palmer, RTN 1-13246, ACOP-WE-00-3005, April 21, 2000)
5. DEP issued a PAN to Pring Corporation of Taunton for failure to comply with a NOAF/NON issued as a result of a MCP Audit completed in June 1999 as well as failure to attend multiple Enforcement Conferences. A penalty of \$3,000 was assessed. (Taunton, RTN 4-13285, PAN-SE-00-3A-006, April 24, 2000)
6. DEP issued a PAN to Mobil Oil Corporation (Mobil) of Westborough for failure to comply with a NOAF/NON issued as a result of an MCP Audit completed in September 1998. The NOAF/NON requested completion of Comprehensive Response Actions and associated submittal requirements. A penalty of \$14,000 was assessed. (Yarmouth, RTN 4-01327, PAN-SE-00-3A-007, April 27, 2000)

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: May 22, 2000



---

## Audit and Enforcement Update May 2000

---

### Audit Findings for May 2000:

DEP issued seventeen Notice of Audit Findings (NOAFs) in May 2000. Eleven NOAFs did not require further assessment/fieldwork. Six NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in May include:

1. Following an audit of an Immediate Response Action (IRA) and Response Action Outcome (RAO) Statement, DEP issued a Notice of Audit Findings (NOAFs) that found the audited actions comply with applicable requirements of the MCP, and no violations or deficiencies were identified.

The site is located within an alleyway situated between a police station building and restaurant building within a commercial area. Upon removal of a 2,000-gallon No. 2 fuel oil underground storage tank (UST) in June 1999, a 72-hour release condition was documented through soil headspace readings of up to 2,500 parts per million (ppm) by photoionization detector (PID). Following release notification, a verbal IRA approval was granted for the removal of one-half inch of free-phase product and removal of up to 200 cubic yards of impacted soil. Soil excavation was monitored by PID readings until final readings at the limits of excavation ranged from below detection limits to 1.4 ppm. Post-excavation soil samples were collected from excavation sidewalls and bottom.

In August 1999, DEP received a Class A-2 RAO Statement support. The RAO was supported by a Method 1 risk characterization, which documented that remaining contaminant concentrations in soil and groundwater were below the more conservative S-1 soil and GW-1 groundwater standards.

(Northampton, 1-12979, May 5, 2000)

2. Following an audit of a Phase I - Initial Site Investigation (PHI) and Class A-2 RAO Statement, DEP issued a NOAF/Notice of Noncompliance (NON) that identified violations in the actions audited. The property where the site is located is currently operated as a gasoline sales and automotive repair facility. The property has been in operation for gasoline sales since 1923.

In September 1993, DEP received a 72-hour release notification associated with the removal of three 3,000-gallon gasoline USTs at the site. IRA activities were not conducted as a result of the release notification although it was reported that "some" contaminated soil was removed and disposed. In July 1998, the site was listed as a Default Tier IB site for failure to meet significant assessment and cleanup deadlines in the MCP.

In July 1999 the Department received a "Phase I Initial Site Investigation Method 3 Risk Assessment in Support of (a) Class A-2 Response Action Outcome". The Department determined that the Class A-2 RAO is not supported since the RAO does not demonstrate that a condition of No Significant Risk has been achieved. The cumulative receptor cancer risks were not calculated in the Method 3 based on the rationale that pavement would prevent contact with contaminated soil. This approach would require the use of an Activity & Use Limitation. Calculated hazard indices exceed the MCP risk limit for all current and future human receptors evaluated. The risk of harm to the environment was not evaluated in a manner consistent with a Method 3 risk characterization, and the PHI does not meet the MCP performance standard.

Identified violations of MCP requirements include:

- a. failure to achieve a permanent solution when submitting a Class A RAO;
- b. failure to impose an AUL when required;
- c. failure to complete a site characterization that is of the scope and level of effort commensurate with the complexity of the disposal site or sufficient to conduct the risk characterization;
- d. failure to conduct a Stage I Environmental Screening in the Method 3 Risk Characterization;
- e. failure to install a minimum of three groundwater monitoring wells or to provide technical justification for not doing so;
- f. failure to provide information required to be contained in a PHI or to provide technical justification for not doing so;
- g. failure to identify and document an Exposure Point Concentration for each Oil or Hazardous Material (OHM) in each medium at each Exposure Point;
- h. failure to indicate appropriate units on sampling and analytical results submitted to DEP;
- i. failure to accurately delineate the boundaries of a site, or portion of a site, identified in the RAO.

DEP requested either retraction of the RAO or submittal of an Audit Follow-up Plan detailing supplemental PHI and risk characterization activities, and correction of violations.

(Boston-Dorchester, 3-10545, NON-NE-00-3A022, May 23, 2000)

3. Following an audit of an IRA and Class A-2 RAO Statement, DEP issued a NOAF/NON that identified violations in the actions audited. The site is located along the westbound northern shoulder of Interstate 90. This portion of the interstate passes through a bedrock knoll and, consequently, is bordered to the north and south by bedrock outcrops. Several private bedrock drinking water wells are located within 200

to 500 feet and potentially downgradient of the site.

In June 1998, the Department was notified that approximately 80 to 100 gallons of diesel fuel had been released from a diesel tank of a tractor-trailer truck to the roadway surface, northern drainage swale, and surface soil at the site. Heavy rain accompanied the release. IRA activities included the absorption of oil from all impacted areas using sand, sorbent booms, and pads, and excavation and off-site disposal of approximately 66 cubic yards of soil. Post-excavation soil samples were collected for analysis. A characterization of groundwater was not conducted.

In August 1998, DEP received a Class A-2 RAO Statement/Report. The RAO was supported by a Method 1 risk characterization, which identified soil category S-3 and groundwater category GW-3 as applicable to the site. The RAO stated that the groundwater pathway was not evaluated, and a groundwater/tap water sample from the closest private drinking water well was not collected because "the residence has a deep well. and given the extent of bedrock in the area . . there is a preponderance of evidence that a hydrogeologic connection does not exist between the groundwater in the release area and the private well".

Identified violations of MCP requirements include:

- a. failure to provide supporting documentation for exclusion of groundwater at the site from a GW-1 groundwater categorization;
- b. failure to accompany soil analytical data by fractionation surrogate standard data as required by the Department's EPH methodology;
- c. failure to document, discuss, and/or correct EPH data quality problems with the soil analytical data as required by the EPH Method;
- d. failure to use the data reporting format and certification required by the Department's VPH and EPH Methods or otherwise providing the Department with the information required by these methods in a clear, concise, and succinct manner in the various site investigation reports.

DEP requested collection of groundwater samples from locations topographically and/or hydraulically downgradient of the site for analysis of VPH, EPH, and diesel fuel target analytes.

(Russell, 1-12432, NON-WE-00-3A068, May 23, 2000)

## **Enforcement - May 2000**

DEP issued a Notice of Response Action (NORA) to the Estate of Carlos Iglesias (Valley Gage Company, Inc.) of Southwick, MA for failure initiate immediate response actions as requested by the Department on three occasions in 1999. The response actions the Department intends to perform in lieu of the PRP include the replacement of carbon filter systems at two residential properties, and sampling and analysis of potable well water at up to nine residential properties. DEP has authority to recover its response action costs through property liens or legal action. (Southwick, RTN 1-10995 & 1-0164, May 16, 2000)

Additional information on the Department's current enforcement actions and

policies can be found on the Department's web page at the following address:  
<http://www.magnet.state.ma.us/dep/enf/enforce.htm>.

## Helpful Hint

### MCP Presumptive Deadlines and Certified Mail

Recently, a modified IRA submittal was sent to DEP via Certified Mail for review with the 21-day presumptive approval time period being applicable to the submittal. One day later, at the US Mail Processing and Distribution Facility, the Return Receipt became separated from the submittal and was stamped by the Facility and returned. Unfortunately, the receipt was not signed by DEP as being received. It was assumed that the date stamped on the card was the date that DEP received the submittal when in fact it was delayed by the Post Office and was not delivered to DEP for another 14 days. The local Postmaster has informed DEP that if the Return Receipt is not signed the receipt is not valid. Therefore, if a Return Receipt is received without a date and a signature you are advised to call the DEP office involved and verify the delivery date with DEP personnel. In this situation, the 21-day presumptive approval time period appeared to be underway based on the return receipt when, in fact, the Department had not considered it begun until 14-days later.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: July 14, 2000



---

## Audit and Enforcement Update June 2000

---

### Audit Findings for June 2000:

DEP issued fifteen Notices of Audit Findings (NOAFs) in June 2000. Nine NOAFs did not require further assessment/fieldwork. Six NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in June include:

1. Following an audit of an Immediate Response Action (IRA) and Class A-1 Response Action Outcome (RAO) Statement, DEP issued a Notice of Audit Findings (NOAFs)/Notice of Noncompliance (NON) that identified violations in the actions audited. The property operates as an automobile garage and service facility.

Notification of a release was provided to DEP in June 1999 for an open-bottomed oil/water separator. The unit allowed "oil, gasoline, and other similar contaminants normally washed from automobile and light trucks" to discharge to the environment. The separator was piped to a septic tank with final disposal to a leachfield. The oil/water separator, septic tank, and leachfield were subsequently removed and replaced by a liquid tight oil/water separator and connected to the municipal sanitary sewer system. Approximately 213 tons of impacted soils were initially excavated and disposed. Post-excavation soil samples collected from the limits of the excavation pits were analyzed for volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH). Three soil borings, completed as monitoring wells, were installed in the vicinity of the oil/water separator excavation prior to the septic tank and leachfield excavation. Soil from B-2/MW-2 and B-3/MW-3 was analyzed for EPH/VPH. Soil from B-1/MW-1 could not be analyzed due to interference from septage. Groundwater samples were collected from all wells. Groundwater flow direction could not be determined due to the "mounding" effect of the leachfield (MW-1 was located within the leachfield area). MW-1 and MW-2 indicated the presence of groundwater contamination so an excavation of the leachfield was performed. MW-1 was destroyed in this process. Since post-excavation soil samples from the de-watered septic tank and leachfield showed no remaining contaminants, no additional groundwater samples were deemed necessary. An additional release condition was identified inside the building. A floor drain within a "mechanic's pit" was discovered to be discharging to a 20-gallon steel drum. The floor drain and drum were removed, together with an additional 4.5 tons of soil. Post-excavation soil samples were non-detect for VPH or EPH, and a Class A-1 RAO was submitted for the site in October of

1999 indicating that background levels were achieved on site.

Identified violations of MCP requirements include:

- a. failure to investigate a potential source of release (piping leading from oil/water separator to leach field);
- b. failure to characterize contaminants of concern in both soil and groundwater;
- c. failure to define the extent of contamination;
- d. failure to adequately characterize the disposal site.

DEP determined that since it had not been shown that contamination at the site has been reduced to background, a risk characterization sufficient to demonstrate an existing condition of no significant risk is necessary. DEP requested the following additional fieldwork:

1. collection of additional soil samples in the vicinity of the oil/water separator piping;
2. determination of groundwater flow direction and additional downgradient groundwater evaluation;
3. identification of the source of MTBE;
4. submittal of site diagrams, including additional sampling points with information on the condition of removed piping; and
5. the submittal of a risk characterization demonstrating a condition of No Significant Risk.

(Westfield, 1-12886, NON-WE-00-3A065, June 26, 2000)

2. Following an audit of Class A-3 RAO Statement and Activity & Use Limitation (AUL) received in September 1997, DEP issued a NOAF that identified a RAO violation in the actions audited that did not require correction. In addition, no AUL errors, which require correction, were identified.

The site is a trucking facility improved with a trucking garage building and is bounded by residential properties. In 1986, an environmental site assessment was conducted, which included the installation of three groundwater-monitoring wells. The wells were sampled for volatile organic compounds (VOCs). VOCs detected in one well were attributed to an off-site source. In 1989, a 2,000-gallon diesel fuel underground storage tank (UST) located adjacent to the trucking garage was removed. No leakage from the tank was reported. Subsequent soil and groundwater investigations conducted in 1989 and 1990 identified surficially stained soil in the vicinity of a waste-oil accumulation area adjacent to the garage. Significant total petroleum hydrocarbon (TPH) contamination was measured through laboratory analysis. The TPH release condition was reported to DEP in 1995. In 1996, a Release Abatement Measure (RAM) Plan was submitted, proposing the excavation and disposal of up to 200 cubic yards of TPH impacted soils. Post-excavation soil sampling for VOC and TPH was conducted at the base and sidewalls of the excavation as well as through test pitting in the vicinity of the excavation. Identified concentrations of VOCs were below the applicable Method 1 S-1 cleanup standards; however, TPH exceeded S-1 standards in five of twelve samples collected. The calculated exposure point concentration for TPH was 623 milligrams per kilogram. Historical assessment of groundwater at the site was used to support an



evaluation of groundwater.

In September 1997, DEP received a Class A-3 RAO and AUL supported by a Method 1 risk characterization. Soil at the site was categorized as S-2 based on current use. An AUL was implemented to permit industrial and commercial uses of the site. The AUL restricts use of the site for residential dwellings, schools, daycare centers, playgrounds, recreation, gardening or agriculture, and any use or activity that would expose subsurface soils. Obligations for future excavation in the AUL area require a Health and Safety Plan and a Soil Management Plan prepared and implemented by an LSP. The identified violation of MCP requirements was a failure to provide notification within 120-days after obtaining knowledge of a release to the environment.

(Waltham, 3-12963, June 28, 2000)

3. Following an audit of an IRA and Class A-2 RAO Statement filed for a release of diesel fuel, DEP issued a NOAF that found the audited actions comply with applicable requirements of the MCP; no violations or deficiencies were identified.

In May 1999, DEP received a 2-hour notification of a sudden release of approximately 75-gallons of diesel fuel from a trucking accident to a paved roadway surface and unpaved roadway shoulders. DEP approved IRA activities, including the use of absorbent media and excavation of up to 100 cubic yards of soil. IRA activities included placing sand and excavating soil. Approximately 15 cubic yards of contaminated material (sand and soil) were disposed of as remediation waste under a Bill of Lading. Five confirmatory soil samples were analyzed for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). In July 1999, DEP received a Class A-2 RAO supported by a Method 1 risk characterization. Applicable public notification requirements were conducted.

(Egermont, 1-12942, June 30, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address: <http://www.state.ma.us/dep/bwsc/audits.htm>.

### **Enforcement - May/June 2000**

1. DEP entered into an Administrative Consent Order with Penalty (ACOP) with Dairy Mart Convenience Stores, Inc. (Dairy Mart) of Hudson, Ohio for failure to provide timely notification of a release in accordance with the 120-day release notification provisions of the MCP. Dairy Mart's failure to provide timely notification resulted, in part, from an inaccurate characterization of the current use of the site by their consultant for the purposes of selecting a reporting category (RCGW-2 was selected when RCGW-1 was applicable), and their subsequent failure to notify once they had knowledge of the applicable reporting category. A penalty of \$750 was assessed. Dairy Mart agreed to submit a completed Tier Classification submittal, RAO, or Downgradient Property Status (DPS) submittal within six months of the effective date of the consent order. Dairy Mart also agreed, if applicable, to submit a Phase II comprehensive Site Assessment and applicable Phase III Remedial Action Plan (RAP) within one year of Tier Classification submittal, and comply with future MCP provisions. (Hatfield, RTN 1-13284, ACOP-WE-00-3004, May 31, 2000)

2. DEP entered into an ACOP with the William H. Fenton Company, Inc. (W.H. Fenton Co.) of Westfield, MA for failure to complete comprehensive response actions, failure to provide a notification of delay in meeting compliance deadlines, and failure to provide notification of a new IRA condition at the site. A penalty of \$12,000 was assessed, with \$7,000 of the penalty suspended pending compliance with requirements of the consent order. W.H. Fenton Co. agreed to submit an IRA Plan and complete IRA activities, complete comprehensive response actions, and submit a Tier II Classification Extension. All actions were to be completed within ninety days of consent order issuance. (West Springfield, RTN 1-10378, ACOP-WE-00-3007, June 6, 2000)
3. A judge ordered Roche Bros. Barrel & Drum Co. of Lowell to "perform and complete all response actions necessary" at its contaminated site on Phoenix Avenue, as well as any adjacent properties that may have been affected. The company was also ordered to pay a \$5,000 penalty into the state's Environmental Challenge Fund. (Lowell, RTN 3-0351, June 16, 2000)

Additional information on the DEP's current enforcement actions and policies can be found on our web page at the following address: <http://www.state.ma.us/dep/enf/enforce.htm>.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: August 21, 2000



---

## Audit and Enforcement Update July 2000

---

### Audit Findings for July 2000:

DEP BWSC issued 29 Notices of Audit Findings (NOAFs) in July 2000. Sixteen NOAFs did not require further assessment/fieldwork. Thirteen NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in July include:

1. Following an audit of Class A-3 Response Action Outcome (RAO) Statement and Activity & Use Limitation (AUL), DEP issued a Notice of Audit Findings (NOAFs) with an Interim Deadline for Termination of the AUL. The RAO was voluntarily retracted in July 1999.

The site is located at a gasoline sales and service facility bounded by commercial and residential properties. In September 1995, petroleum-impacted soil was encountered during excavation activities associated with a hydraulic lift repair. The release condition was reported to DEP and RTN 3-13393 was assigned. Up to two cubic yards of impacted soil was removed and post-excavation soil samples were collected. Post-excavation soil sample analysis indicated the presence of total petroleum hydrocarbons (TPH) up to 8,190 milligrams per kilogram (mg/kg). One monitoring well and two soil borings were installed to assess the extent of the release. TPH was identified in groundwater up to 10,600 micrograms per liter (ug/l).

In February 1997, DEP received a Class A-3 RAO and AUL supported by a Method 1 risk characterization. Soil at the site was categorized as S-3 and groundwater as GW-2 and GW-3. Soil exposure point concentrations were calculated by averaging both post-excavation and monitoring well soil results. An AUL was implemented to reduce the potential for exposure to the remaining contaminated soil. The AUL restricts residential use of the site. Obligations and conditions of the AUL include periodic monitoring of the property to ensure that soil remains either "isolated" or "potentially accessible". DEP determined that the magnitude and extent of groundwater contamination was not sufficiently characterized.

The identified violation of MCP requirements was a failure to identify the vertical and horizontal extent of the release. DEP requested retraction of the RAO and Termination of the AUL. Additional releases identified at the property (leaking underground storage

tanks) resulted in a Tier II classification in October 1998. Additional response actions required addressing RTN 3-13393 were identified in a revised Tier Classification submittal submitted in July 1999.

(Waltham, 3-13393, 3-15574 & 3-15578, July 5, 2000)

2. Following an audit of Comprehensive Response Actions (Phase II/III/IV/V), DEP issued a NOAF/ Notice of Noncompliance (NON) that identified a violation of MCP requirements.

The site is located at a gasoline sales and service facility located in the center of a retail district. The site was first listed as a confirmed disposal site in 1990 as a result of leaking underground storage tanks. Both dissolved and separate-phase petroleum has been identified at the site. Separate-phase petroleum was last identified at the site in 1994. A Phase II Comprehensive Site Assessment was completed in 1998. Subsurface conditions have been characterized through advancement of 23 soil borings, of which 15 were completed as monitoring wells. Groundwater monitoring has been conducted on a quarterly basis, with some gaps, since 1991. Up to 1,400 tons of contaminated soil was removed from the site. Both a groundwater extraction and treatment and a soil vapor extraction with supplemental air sparging have been used as in-situ interim measures for the site. These efforts were terminated in 1996.

The Phase III (PHIII) Remedial Action Plan was submitted in May 1998. The PHIII selected natural attenuation as the remedy for impacted groundwater at the site, which was expected to restore the site groundwater to background conditions. Soil conditions were evaluated to pose no significant risk. A receding plume was cited as evidence of natural attenuation. However, no evidence of mass destruction was presented. A five-year time frame was used in estimating the overall costs for the remedy. The Phase IV (PHIV) Remedy Implementation Plan was received in September 1999. The PHIV stated the remedial action goal as reduction of contamination to levels approaching background. Quarterly monitoring for Volatile Petroleum Hydrocarbons (VPH) and monthly monitoring for natural attenuation indication parameters were proposed for eight monitoring wells. However, the locations to be monitored and indicator analyses to be performed were not specified, and the criteria to be used to evaluate the effectiveness of the remedial alternative were not stated.

The identified violation of MCP requirements was a failure to provide sufficient data and supporting information to demonstrate that the selected remedial alternative (natural attenuation) was likely to be effective. DEP requested submission of sufficient data and discussion to clearly demonstrate that natural attenuation is occurring at the site, and that remedial goals will be met within reasonable timeframes. The data must conform to current industry practice and regulatory standards. If the data cannot be presented, then a revised remedial action plan shall be submitted.

(Amherst, 1-0780, NON-WE-00-3A084, July 6, 2000)

3. Following an audit of a Downgradient Property Status (DPS) opinion, DEP issued a NOAF/NON that identified a violation in the actions audited and required termination of the DPS opinion.

The site is located within a commercial shopping center property. Soil contaminated by volatile organic compounds (VOCs) was identified in the surface soils at a depth of between 0 and 4 feet. In November 1999 a DPS opinion was filed. The DPS indicated that VOCs migrated onto the shopping center property via groundwater flow, then "migrated from groundwater to soil . . . by volatilization, migration upward as soil gas, and adsorption by organic material in soil and absorption of COCs by soil moisture in the shallow soil, and condensation." No actual site data, modeling results, etc. were provided to support this hypothesis. Depth to groundwater is approximately 15 to 17 feet below grade. Soil contamination was not encountered in a soil sample collected for analysis at 13 feet below grade, above the groundwater table.

The identified violation of MCP requirements was a failure to base a DPS opinion on investigation and assessment actions of sufficient scope and level of effort to conclude that the criteria in 310 CMR 40.0183(2)(b) have been met. Specifically, the DPS opinion failed to prove that the source of release of oil and/or hazardous materials at the downgradient or downstream property is or was located on one or more upgradient or upstream locations and oil/hazardous material from that location(s) has come to be located at the downstream property as a result of migration of the oil/hazardous material in or on groundwater or surface water.

(Waltham, 3-18555, NON-NE-00-3A048, July 26, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address: <http://www.state.ma.us/dep/bwsc/audits.htm>.

## **Enforcement - July 2000**

DEP BWSC issued 28 NONs, 2 ACOPs, 1 ACO, and 1 SPAN in July 2000. Enforcement actions of particular significance in July include:

1. DEP entered into an Administrative Consent Order (ACO) with Mr. Henry Wielgosz of Holyoke, MA for failure to complete immediate response actions and comprehensive response actions in accordance with the MCP. Specifically, he failed to conduct IRA activities to remove separate-phase product; failed to submit a Phase II Comprehensive Site Assessment and applicable Phase III Remedial Action Plan (RAP) within two years of the effective date of Tier Classification; and failed to submit a Phase IV Remedial Implementation Plan (RIP) within three years of the effective date of Tier Classification. A suspended penalty of \$7,500 was assessed, contingent on compliance with the ACO. Mr. Wielgosz agreed to complete IRA actions and submit an IRA Status Report. Also, Mr. Wielgosz agreed to submit a Phase II Comprehensive Site Assessment and applicable Phase III Remedial Action Plan (RAP) and comply with future MCP provisions. (Holyoke, RTN 1-1024, ACOP-WE-00-3003, July 7, 2000)
2. DEP issued a NOAF/NON and entered into an Administrative Consent Order with Penalty (ACOP) with the Lamfer Realty Trust of Holyoke, MA, following a MCP Audit of three Class B-1 RAO Statements filed at a former auto dealership. Lamfer Realty Trust failed to notify DEP of a 120-day release condition (1-13440); failed to support an RAO with assessments and evaluations commensurate with site conditions, and the Response Action Performance Standard (1-12831); and failed to identify exposure point concentrations that provide a conservative estimate of the concentration

that may be contracted by a receptor (1-13370). A penalty of \$1,250 was paid, and \$7,000 was suspended contingent on compliance with the ACOP and on the assumption that the Trust commits no more environmental violations over the next two years. Lamfer Realty Trust agreed to complete additional assessment activities for assessment violations (1-12831), and agreed to submit an Audit Follow-up Plan to conduct additional assessment to address the extent of petroleum contamination, together with submittal of a revised risk characterization or retraction of the Class B-1 RAO. (Holyoke, RTN 1-12831, 1-13370, & 1-13440, ACOP-WE-00-3A008, July 25, 2000)

### **Audit Findings for Sites with Activity & Use Limitations (AULs)**

As of August 31, 2000, DEP issued 45 Notices of Audit Findings (NOAFs) for sites with AULs being audited pursuant to the Brownfields mandate (passed in August 1998). Twenty-eight NOAFs did not require further assessment/fieldwork for the Response Action Outcome (RAO) Statements. Seventeen NOAFs found that the RAOs lacked sufficient assessment/fieldwork. In addition, fifteen NOAFs found errors in the AUL legal instrument that required correction. At eight sites, the audit found that response actions were not protective and required retraction of the RAO and termination of the AUL legal instrument.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: September 28, 2000



---

## Audit and Enforcement Update August 2000

---

### **Audit Findings for August 2000:**

DEP BWSC issued 14 Notices of Audit Findings (NOAFs) in August 2000. Six NOAFs did not require further assessment/fieldwork. Eight NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in August include:

1. Following an audit of a Phase II Comprehensive Site Assessment (PHII) and Class A-2 Response Action Outcome (RAO), DEP issued a Notice of Audit Findings (NOAFs)/ Notice of Noncompliance (NON) that identified violations in the actions audited.

The site is located on an area that consists primarily of three properties: a gasoline sale and service station, an office building, and an automotive parts store. In December 1987, gasoline fumes were reported and confirmed to be present within the basement of the office building. The source of the gasoline fumes was confirmed to be from two leaking gasoline underground storage tanks (USTs) located at the abutting service station. A short-term measure (STM) was implemented, consisting of the installation of a subsurface ventilation and air purification system in three buildings, installation of a product recovery system, installation of a bioremediation system, installation and sampling of 21 groundwater monitoring wells, and indoor air sampling. The indoor soil venting system at one of the buildings remained in operation until December 1996. Based on the results of the STM, a Waiver application was approved in December 1993.

In February 1998, the DEP received a PHII report and Class A-2 RAO. The PHII included the installation of two additional monitoring wells, results of nine rounds of groundwater monitoring performed between 1993 and 1997, collection and analysis of five soil samples collected by direct-push borings, collection of an additional round of indoor-air sampling from the three previously impacted buildings, plus soil-gas sampling from pre-existing vent points. The results of these investigations were used to develop a Method 1 and 2 risk characterization to support the RAO. Potential indoor air impacts were evaluated using soil gas data only.

Identified violations of MCP requirements include:



- a. failure to support the RAO by performing an assessment of sufficient scope to characterize risk. (One non-synchronous round of soil gas sampling does not provide data adequate to account seasonal variations.);
- b. failure to ensure that analytical and environmental monitoring data are scientifically valid and defensible. (Soil gas and indoor/ambient air samples exceeded holding times and the dates that these samples were collected and analyzed were not provided on data sheets.); and
- c. failure to adequately characterize the extent of soil contamination. (Given the separate-phase impact of more than 1-acre of land, more than five soil samples are necessary for an adequate soil characterization.)

DEP requested additional soil gas/indoor air sampling, and additional soil sampling to support the RAO. If the results of the additional sampling activities indicate that a condition of No Significant Risk has not yet been achieved, then the RAO must be retracted.

(West Springfield, 1-00398, NON-WE-00-3A105, August 1, 2000)

2. Following an audit of Class B-2 RAO Statement and Activity & Use Limitation (AUL), DEP issued a NOAF/NON that identified violations in the actions audited. The site is located at a gasoline sales and service facility.

In January 1987, the site was listed as a Location to be Investigated (LTBI) as a result of environmental assessments. In July 1998, DEP received a Phase I Site Investigation (PHI) in support of a Tier Classification. The site was classified as Tier II through the evaluation of soil and groundwater from up to 13 soil borings and seven monitoring wells. In August 1999, DEP received a Class B-2 RAO supported by a Method 3 risk characterization. Six additional monitoring wells were installed, and one indoor air sample was collected in support of the risk characterization.

Identified violations of MCP requirements included:

- a. failure to achieve a level of no significant risk. (The non-cancer risk for the indoor air exposure pathway for an on-site employee was identified as 2,560, which exceeds the Hazard Index (HI) risk limit of 1.);
- b. failure to evaluate the potential for significant risk of harm to public welfare and the environment through a comparison of soil and groundwater impacts to Upper Concentration Limits (UCLs). (If calculated, the arithmetic average of naphthalene concentrations (135 mg/l) calculated from the monitoring wells exceeds the UCL of 60 mg/l.);
- c. failure to adequately characterize the horizontal extent of oil and/or hazardous materials in groundwater. (Separate-phase product was identified in monitoring wells; however, groundwater conditions downgradient of these wells were not evaluated.);
- d. failure to identify an Exposure Point Concentration for soil or groundwater;
- e. providing false, inaccurate, incomplete, or misleading statements to DEP.

DEP requested additional assessment to determine whether a permanent solution can be achieved or retraction of the RAO and Termination of the AUL is warranted.



(Boston/Dorchester, 3-0183, NON-NE-00-3A050, August 16, 2000)

3. Following an audit of an Immediate Response Action (IRA) and RAO Statement, DEP issued a NOAF/NON that identified a violation in the actions audited.

The site is located in a residential apartment complex. The site is also located within 100 feet of a Class-A water body. Upon removal of a 3,000-gallon No. 2 fuel oil underground storage tank (UST) in April 1999, a 72-hour release condition was documented through soil headspace readings of up to 185 parts per million (ppm) by photoionization detector (PID). Following release notification, a verbal IRA approval was granted for the removal of up to 25 cubic yards of impacted soil. Soil excavation was monitored by PID readings until final readings at the limits of excavation ranged from 0 ppm to 90 ppm for the four sidewalls.

One post-excavation composite soil sample was collected from the excavation sidewall for volatile petroleum hydrocarbon (VPH) and extractable petroleum hydrocarbon (EPH) analysis. Results of this analysis were below the Method 1 S-1/GW-1 soil standards. A groundwater sample from within the tank excavation was collected and analyzed for VPH and EPH. Results of this analysis indicated two VPH fractions, three EPH fractions, naphthalene and 2-methylnaphthalene above the applicable Method 1 GW-1 standards. A groundwater monitoring well was subsequently installed in the former UST area and sampled for VPH and EPH. Results of this analysis indicated all parameters were below applicable method detection limits (MDLs). However, the MDL for one EPH fraction was greater than the GW-1 standard. Two surface water samples were collected from the nearby Class-A water body for VPH and EPH analysis. All parameters were below the MDL.

In July 1999, DEP received a Class A-2 RAO Statement and IRA Completion Statement. The RAO was supported by a Method 1 risk characterization, which evaluated a soil EPC from one (composite tankwall) soil sample, and one round of groundwater sampling from one monitoring well.

Identified violations of MCP requirements included:

- a. failure to identify a soil EPC that represents a conservative estimate of the exposure;
- b. failure to employ Response Action Performance Standard (RAPS) to ensure that investigative practices are scientifically defensible, and of a level of precision and accuracy commensurate with the intended use of the results. (The method detection limit for the reported EPH fraction analysis was higher than the applicable method 1 standard.);
- c. failure to support the RAO by assessments and evaluations of sufficient scope, detail, and level of effort, to characterize risk (one round of groundwater data is not sufficient to adequately assess site conditions).

DEP requested additional assessment to determine whether a permanent solution has been achieved.

(West Boylston, 2-12734, NON-CE-00-3041, August 30, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address: <http://www.state.ma.us/dep/bwsc/audits.htm>.

## **Enforcement - August 2000**

DEP BWSC issued 56 NONs, 2 Administrative Consent Orders with Penalty (ACOPs), and 2 Standard Penalty Assessment Notices (SPANs) in August 2000. Enforcement actions of particular significance in August include:

1. 1. DEP issued a SPAN to Universal Auto Sales of Millbury, MA for failure to comply with a Notice of Noncompliance. Universal Auto Sales failed to submit a Response Action Outcome (RAO), a Tier Classification submittal, or a written plan for timely response actions by the one-year anniversary of a release at its property. A penalty of \$7,000 was assessed. (Millbury, 2-12664, SPAN-CE-00-3003, August 11, 2000).
2. 2. DEP issued a Standard Penalty Assessment Notice (SPAN) to Scott Hill Auto Sales of Bellingham, MA for failure to comply with a Notice of Noncompliance. Scott Hill Auto Sales failed to submit a Response Action Outcome (RAO), a Tier Classification submittal, or a written plan for timely response actions by the one-year anniversary of a release at its property. A penalty of \$7,000 was assessed. (Bellingham, 2-12555, SPAN-CE-00-3004, August 11, 2000).

Additional information on DEP's current enforcement actions and policies can be found on our web page at the following address: <http://www.state.ma.us/dep/enf/enforce.htm>.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Updated: October 20, 2000



---

## **Audit and Enforcement Update September 2000**

---

### **Audit Findings for September 2000:**

DEP BWSC issued 24 Notices of Audit Findings (NOAFs) in September 2000. Twelve NOAFs did not require further assessment/fieldwork. Twelve NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in September include:

1. Following an audit of a Phase II Comprehensive Site Assessment (PHII), Phase III Remedial Action Plan (PHIII), and Class C Response Action Outcome (RAO), DEP issued a Notice of Audit Findings (NOAF)/ Notice of Noncompliance (NON) that requested retraction of the Class C RAO and submittal of an Audit Follow-up Plan.
2. The site is located at a retail gasoline station and within an approved Zone II of a municipal drinking water supply well. In October 1989, petroleum contaminated soils were encountered during municipal sewer excavation activities. The source of the petroleum contamination was identified as leaking gasoline underground storage tanks (USTs) located on the gas station property. The tanks were removed in 1990. A Waiver application was approved in July 1991. A short-term measure (STM) was implemented, consisting of a soil vapor extraction system, which operated from 1991 to 1993. Assessment activities included the on-site collection of both soil and groundwater samples. Elevated concentrations of MTBE [13,000 micrograms per liter (ug/L)] were identified in December 1994. Comprehensive Response Actions were not conducted; the Waiver expired in July 1996. Periodic groundwater monitoring

was conducted except in 1996 and 1997. Between 1996 and 1999, DEP received four Tier II Extension requests.

In March 1999, an evaluation of potential off-site migration of site contaminants was initiated. In August 1999, DEP received a PHII, a PHIII, and a Class C RAO supported by a Method 3 risk characterization. The PHII did not include a discussion of the increasing presence of MTBE at the site. Two rounds of off-site groundwater monitoring were provided to support conclusions made in the Phase II and Phase III reports. The PHIII selected natural attenuation as the remedial action alternative for the site based on "downward trends in petroleum concentrations measured in samples collected since concentrations were highest in 1994 indicates that biodegradation of petroleum hydrocarbons in the subsurface is occurring and can be expected to continue to decrease with time." The natural attenuation remedial action was selected as a Temporary Solution for the site. The Phase III did not provide sufficient site specific data to prove that natural attenuation was occurring and was the most viable option for this site. The PHIII included neither a detailed description of definitive and enterprising steps to develop an alternative that is a likely Permanent Solution nor a schedule for implementation. In addition, the submitted PHIII presents information on remediation by Oxygen Releasing Compounds (ORC) that suggests that "bioremediation of MTBE has not been shown to be effective." However, natural attenuation was selected as the temporary remedial alternative based on the assumption that biodegradation of site contaminants (primarily MTBE) is occurring.

Identified violations of MCP requirements include:

- a. failure to comply with an Interim Deadline;
- b. failure to meet the PHII performance standard;
- c. failure to meet the PHIII performance standard;
- d. failure to provide definitive and enterprising steps to develop an alternative that is a likely Permanent Solution;
- e. failure to support the selection of the remedial action alternative (Downward trends in petroleum concentrations, alone, is not basis to conclude biodegradation is occurring.);
- f. failure to meet the requirements of a Class C RAO.

(Milford, 2-00798, NON-CE-00-3043, September 12, 2000)

3. Following an audit of a Release Abatement Measure (RAM) and Class A-2 RAO, DEP issued a NOAF/NON that identified violations in the actions audited and requested an Audit Follow-up Plan.

The site is located at a former gasoline sales and service facility that is currently used as a commercial establishment, and is located within an approved Zone II for municipal drinking water supplies. A 120-day release condition, inclusive of diesel fuel constituents in groundwater above the applicable RCGW-2 level, was reported to DEP on July 1, 1997. Knowledge of the release was obtained during removal of a diesel underground storage tank (UST) where a subsequent Limited Removal Action (LRA) was performed. The property historically contained several USTs for gasoline, fuel oil, waste oil, lube oil, as well as an oil/water separator.

A second LRA was performed in a former gasoline and oil UST area between July 10 and 11, 1997. On July 31, 1997, DEP received a RAM Plan for groundwater removal and treatment. On July 15, 1997, a groundwater recovery well was installed and extraction began on July 28, 1997 to treat groundwater. Up to four monitoring wells were installed on site. Groundwater was sampled for Total Petroleum Hydrocarbons (TPH), Extractable Petroleum Hydrocarbons (EPH), and Volatile Organic Compounds (VOC). TPH concentrations ranged from 7,000 parts per million (ppm) to 98,900 ppm.

On October 31, 1997, DEP received a RAM Completion report and Class A-2 RAO supported by a Method 1 risk characterization. The submitted risk characterization categorized groundwater as GW-2 and GW-3.

Identified violations of MCP requirements include:

- a. failure to meet the RAO performance standards [Groundwater in a Zone II should have been classified as GW-1; TPH concentrations exceeded the applicable GW-3 standard of 50,000 ppm; the extent of contamination was not determined; neither soil nor groundwater were sampled for potential contaminants of

concern, including ethylene dibromide (EDB), lead or metals; a feasibility evaluation to reduce contaminant concentrations to background was not conducted];

- b. failure to submit a RAM plan prior to implementation; and
- c. failure to obtain DEP approval prior to implementing a RAM.

(Milford, 2-11822, NON-CE-00-3044, September 22, 2000)

4. Following an audit of a Class B-1 RAO, DEP issued a NOAF, which determined that response actions were performed in compliance with the requirements of the Massachusetts Contingency Plan (MCP), and that the information submitted to the DEP adequately documented those actions.

The site is located at a gasoline sales facility and convenience store property. The aquifer beneath the site, at a depth of less than 15 feet, is classified as a non-potential drinking water source area (NPDWSA). In March 1998, DEP received notice of a 120-day release condition inclusive of petroleum constituents in groundwater above the applicable RCGW-2 level. The reportable condition was detected in groundwater samples collected during a property transfer investigation. Eight soil boring and groundwater monitoring well installations were used to assess the site, and four rounds of groundwater monitoring were conducted. Soil samples were collected from three well locations. Both groundwater and soil were analyzed for Volatile Petroleum Hydrocarbons (VPH) and Extractable Petroleum Hydrocarbons (EPH).

A method 1 risk characterization was performed with a selection of groundwater category GW-2 and GW-3 and soil category S-3. The soil exposure point concentrations were compared with the more protective S-1 standards. All soil and groundwater EPCs were below the applicable Method 1 standards, and a level of no significant risk was demonstrated.

(Adams, 1-12444, September 29, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address:

<http://www.state.ma.us/dep/bwsc/audits.htm>.

## **Enforcement - September 2000**

In September 2000, DEP BWSC issued 26 NONs, 2 Unilateral Administrative Orders (UAOs), 1 Administrative Consent Order (ACO), 1 Penalty Assessment Notice (PAN), and 1 Standard Penalty Assessment Notice (SPAN). Enforcement actions of particular significance include:

1. DEP issued a UAO to Mobil Business Resources Corporation (Mobil) of Westborough, Massachusetts for failure to complete comprehensive response actions from 1991 through 1999 for a release that occurred in 1988. In addition, Mobil failed to comply with three Tier II Extension Requests for which Mobil established the approved parameters. DEP ordered Mobil to complete required comprehensive response actions by July 2001. (Falmouth, 4-0728, UAO-SE-00-3T-003, September 25, 2000).
2. DEP issued a Penalty Assessment Notice (PAN) to Killingly Building Products Company, Inc. (Killingly) of Dayville, CT for failure to provide notification of a 2-hour sudden release condition. Killingly failed to provide notification of a 20-gallon hydraulic oil release. A penalty of \$2,500 was assessed. (Sterling, 2-13183, PAN-CE-00-3001, September 27, 2000).

Additional information on DEP's current enforcement actions and policies can be found on our web page at the following address:

<http://www.state.ma.us/dep/enf/enforce.htm>.

## **Helpful Hint**

It has come to DEP's attention that some Limited Removal Actions (LRAs) are being implemented at sites where a LRA should not be conducted. LRAs are intended to keep small, discrete releases of oil or hazardous materials to soil out of the MCP process (before a 120-day notification requirement) by allowing excavation of soils contaminated above applicable RCs. Whenever evidence exists to suggest that the LRA will not be effective in remediating the release (e.g. if RCs are exceeded in groundwater or when the volume of soils above RCs is likely to exceed the LRA limits) an LRA can no longer be conducted. Initiating soil excavation under such circumstances constitutes abating a release by performing a Release Abatement Measure (RAM) without notifying DEP or obtaining its approval.

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Revised November 17, 2000





---

## **Audit and Enforcement Update October 2000**

---

### **Audit Findings for October 2000:**

DEP BWSC issued 31 Notices of Audit Findings (NOAFs) in October 2000. Fifteen NOAFs did not require further assessment/fieldwork. Sixteen NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in October include:

1. Following an audit of a Class A-3 Response Action Outcome (RAO) Statement and Activity & Use Limitation (AUL), DEP issued a Notice of Audit Finding (NOAF)/ Notice of Noncompliance (NON) that identified violations in the actions audited. In addition, AUL errors, which require correction, were identified.

The site is located at a 19-acre federal service facility and within an Interim Wellhead Protection Area (IWPA). In October 1995, during removal of a 10,000-gallon diesel fuel underground storage tank (UST), a 72-hour release condition was documented through soil headspace readings of greater than 100 parts per million (ppm) by photoionization detector (PID). Following release notification, a verbal IRA approval was granted for the removal of up to 350 cubic yards of impacted soil, installation of five soil borings, and construction of three monitoring wells. Separate-phase product was present in the excavation. Groundwater was not encountered during the tank removal to a depth of 6 feet. Post-excavation soil samples exhibited the presence of Total Petroleum hydrocarbon (TPH) and 2-methylnaphthalene above the Method 1, S-3/GW-1 risk characterization standards. Five borings and three monitoring wells (within respective borings)

were completed. Bedrock was encountered at depths ranging from 14 to 19 feet. Two borings, which encountered bedrock, were completed as monitoring wells to a depth of 30 feet. Groundwater levels indicated the head in the bedrock aquifer measured up to 7 feet above the top of the well screens and up to 2 feet above the bedrock/overburden interface. One groundwater sampling event was conducted. Groundwater samples indicated the presence of benzene at 1 microgram per liter (ug/l).

In October 1996, DEP received a Class A-3 RAO with an AUL supported by a Method 2 risk characterization. Direct contact was determined to be the primary pathway of concern at the site based on the assertion that the contaminants of concern would not leach into the groundwater. This assertion was made with the justification that no overburden groundwater was identified, dissolved hydrocarbons had not been detected in the bedrock groundwater, and the planned implementation of an AUL would require pavement over the impacted area.

Identified violations of MCP requirements included:

- a. failure to apply MCP guidelines in developing soil and groundwater standards during Method 2 risk characterization (which states that groundwater monitoring shall demonstrate that residual soil contamination is not and will not result in concentrations greater than applicable standards). The duration of the monitoring shall depend on the source mass, the mobility of the oil and/or hazardous materials, and subsurface conditions.

Identified errors of the AUL include not adequately defining what uses and activities are permitted or restricted at the site, or what obligations and conditions must be maintained at the site. DEP requested an Audit Follow-up Plan to address additional groundwater monitoring and an evaluation of hydrogeologic conditions. An Amendment of the Notice of AUL was required to correct AUL errors.

(Norwood, 3-13057, NON-NE-00-3A047, October 02, 2000)

2. Following an audit of a Release Abatement Measure (RAM) and Class A-2 RAO, DEP issued a

NOAF/NON that identified violations in the actions audited.

The site is located at a former heating, cooling, and oil company that is used as a commercial office property, and is located within an approved Zone II for municipal drinking water supply wells. A 120-day release condition, including petroleum constituents present at levels above the applicable RCGW-1 level groundwater (from monitoring well MW-01 and MW-02), was reported to DEP on February 16, 1999. Knowledge of the release was obtained in October 1998 as a result of an environmental site assessment. The source of release was reported to be aboveground storage tanks used for heating oil.

In August 1999, DEP received a RAM Plan for assessment, and groundwater extraction and treatment. Five soil borings, four of which were completed as monitoring wells, were installed in the vicinity of the former fuel oil ASTs. Groundwater extraction and treatment were performed between October and December 1999. Concentrations of Extractable Petroleum Hydrocarbons (EPH) in soil collected from soil borings did not exceed Method 1 S-1/GW-1 soil standards. Concentrations of EPH and Volatile Organic Compounds (VOC) in groundwater did not exceed Method 1 GW-1 and GW-3. Two rounds of groundwater sampling were conducted within one month following deactivation of the groundwater extraction and treatment system. Monitoring well MW-01 was not sampled to support a risk characterization. On February 16, 2000, DEP received a RAM Completion report and Class A-2 RAO supported by a Method 1 risk characterization.

Identified violations of MCP requirements include:

- a. failure to establish exposure point concentrations demonstrating a condition of no significant risk,
- b. failure to meet performance standards for Response Action Outcomes (several errors and omissions of data and information were identified in both the RAM Completion and RAO reports).

DEP requested that additional temporal groundwater monitoring be conducted.

(Milford, 2-12701, NON-CE-00-3054, October 12, 2000)

3. Following an audit of a Phase II Comprehensive Site Assessment (PHII) and Phase III Remedial Action Plan (PHIII), DEP issued a NOAF/NON that identified violations in the actions audited.

The site is located at a manufacturing and industrial property, and is located within an Interim Wellhead Protection Area for an inactive municipal drinking water supply well. In January 1988, DEP received notice of a release condition identified upon closure in-place of a 2,000-gallon concrete UST used to store waste paint and waste paint thinner. The site was listed as a Location to be Investigated (LTBI) in April 1988 and a confirmed disposal site in July 1991. The site is currently classified as Tier IB. A Tier IB permit extension expires in April 2001.

In September 1993, a separate-phase layer of toluene was identified in the former waste paint/thinner UST area. The release was assigned RTN 2-10107 and an Immediate Response Action was conducted consisting of monitoring, removal, and containerizing of toluene product. The IRA was completed in October 1996 following the nonreappearance of the toluene product. A RAM was submitted in June 1994 to remove residual toluene contamination from the overburden and shallow bedrock by installing a soil vapor extraction system (SVE). The SVE operated from September 1995 until November 1996 and intermittently thereafter.

In January 1998, DEP received a PHII report, which included results of additional site assessment. Overburden groundwater flow has been identified to the south-southeast. Groundwater samples collected in the vicinity of the former USTs indicate elevated levels of toluene and petroleum hydrocarbons up to 250 parts per billion toluene. Concentrations of chlorinated hydrocarbons and methyl tertiary butyl ether (MTBE) have been identified in water samples obtained from several residential properties located south of and downgradient of the site. A currently inactive public water supply well is located approximately 1,700 feet southeast of the site. The PHIII report selects an enhanced SVE system with continued monitoring of private drinking water wells as the remedial action alternative for a temporary

solution at the site. The selected remedial action fails to adequately address the potential continued exposure of persons to chlorinated solvents from private wells, and fails to adequately justify the non-feasibility of other various remedial options citing a lack of data.

Identified violations of MCP requirements include:

- a. failure to define the nature and extent of contamination,
- b. failure to provide an adequate temporary solution and failure to provide sufficient justification for the non-selection of a plan to achieve a Permanent Solution,
- c. failure to notify of the presence of site contaminants in private wells within 72-hours (condition of Substantial Release Migration),
- d. failure to conduct an IRA in conjunction with the SRM condition,
- e. failure to eliminate the Critical Exposure Pathway.

DEP requested two actions by the party, within 72-hours of receipt of the NON: 1) notification of the Substantial Release Migration (SRM) condition, and intent to perform an IRA to address both the SRM and Critical Exposure Pathway for residences along River Road now or formerly known to have an active private drinking water supply well contaminated by chlorinated hydrocarbons, and 2) a schedule for correcting identified PHII and PHIII violations.

(Hudson, 2-0544, NON-CE-00-3055, October 20, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address:

<http://www.magnet.state.ma.us/dep/bwsc/audits.htm>.

### **Enforcement - October 2000**

In October 2000, DEP BWSC issued 68 NONs, 7 Administrative Consent Order (ACOs), 1 Unilateral Administrative Order (UAO), 2 Administrative Consent Order with Penalty (ACOP), and 1 Standard Penalty Assessment Notice (SPAN). Enforcement actions of particular significance in October include:

1. DEP issued a Standard Penalty Assessment Notice (SPAN) and a UAO to Centrex General Contractors,

Inc. (Centrex) of Rehoboth, MA for failure to comply with a Notice of Noncompliance. Centrex failed to submit a Response Action Outcome (RAO) or Tier Classification submittal by the one-year anniversary of a release at its property. The UAO orders Centrex to comply with MCP submittal requirements. A penalty of \$7,000 was assessed. (Rehoboth, 4-10323, SPAN-SE-00-3T-003, October 23, 2000).

2. DEP entered into an Administrative Consent Order with Penalty (ACOP) with Verizon/Massachusetts (Verizon) for failure to complete an immediate response action (IRA) and undertake other comprehensive cleanup work to address leaking underground gasoline and waste oil storage tanks at its North Adams facility. A penalty of \$6,000 was assessed. Verizon immediately completed required response actions. (North Adams, RTN 1-0392, 1-11089, and 1-11292, ACOP-WE-00-3015, October 26, 2000)
3. DEP executed seven ACOs with Mobil Business Resources Corp., committing the company to firm dates for completing required assessment and cleanup actions at seven contaminated sites that it owns in central Massachusetts. If Mobil misses these deadlines, it will be liable for financial penalties.

Additional information on DEP's current enforcement actions and policies can be found on our web page at the following address:

<http://www.magnet.state.ma.us/dep/enf/enforce.htm>.

---

[Contact: [Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)]  
[[List of Audit and Enforcement Updates](#)] [[BWSC Home](#)]  
[[Other DEP Enforcement Actions](#)] [[MA DEP Home](#)] [[Search](#)]

Revised December 15, 2000



---

## Audit and Enforcement Update November 2000

---

Contact:

[Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)

[List of Audit and Enforcement  
Updates](#)

[Other DEP Enforcement  
Actions](#)

[BWSC Home](#)

[DEP Home](#)

[Search](#)

### Audit Findings for November 2000:

DEP BWSC issued 15 Notices of Audit Findings (NOAFs) in November 2000. Seven NOAFs did not require further assessment/fieldwork. Eight NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in November include:

1. Following an audit of an Immediate Response Action (IRA) and Class A-2 Response Action Outcome (RAO) Statement filed for a release of gasoline, DEP issued a Notice of Audit Finding (NOAF) that found the audited actions comply with applicable requirements of the MCP; no violations or deficiencies were identified. In February 1999, DEP received a 2-hour notification of a sudden release of approximately 10 to 20-gallons of gasoline from a delivery truck to a paved surface and an abutting snow and ice embankment. DEP approved IRA activities, including the use and disposal of absorbent media. In April 1999, several soil samples were screened for volatile organic compounds using a photoionization detector (PID). The sample exhibiting the highest PID reading (11 parts per million) was analyzed for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). Results of the analysis were below applicable Method 1 soil standards.  
  
(Montague, 1-12838, November 3, 2000)
2. Following an audit of a Class A-3 Response Action Outcome (RAO) Statement and Activity & Use Limitation (AUL), DEP issued a NOAF/ Notice of Noncompliance (NON) that identified violations in the



RAO actions audited. An AUL error, which requires correction, was also identified.

The site is located at a single-family residential property. The property was part of a larger parcel of land formerly developed for commercial and industrial uses, including a bleachery, webbing mill, fur factory, and commercial laundry (including dry cleaners). In April 1994, DEP was notified of solvent odors observed in subsurface soils during the installation of a utility line along the western portion of the property.

In 1994, a site assessment was conducted, indicating impacts to soil and groundwater by tetrachloroethene (PCE), cis-1, 2-dichloroethene, trichloroethene, and vinyl chloride. In February 1998, a Release Abatement Measure (RAM) Plan was submitted proposing further subsurface assessment and removal of impacted soil. Between December 1997 and February 1998, five existing monitoring wells were sampled and seven soil borings were installed and screened for the presence of VOC to focus excavation activities. Laboratory analytical results of groundwater sampling indicated the presence of cis-1, 2-dichloroethene up to 11,000 micrograms per liter (ug/L), trichloroethene up to 18,000 ug/L, and PCE up to 16,000 ug/L. Laboratory analytical results of soil boring sampling (14 to 20 feet in depth) indicated the presence of cis-1, 2-dichloroethene up to 0.174 milligrams per kilogram (mg/kg), trichloroethene up to 0.330 mg/kg, and PCE up to 21 mg/kg.

In February 1999, excavation activities were completed on the northern portion of the site. The excavation was extended to a depth of 14 feet below grade. Groundwater was encountered at a depth of 5 feet. Approximately 84 tons of solvent-impacted soil and 1,500 gallons of solvent-impacted groundwater were removed. Excavated soil was transported and disposed of under a Bill of Lading as "total petroleum hydrocarbon (TPH) and urban fill" impacted soils. Post excavation soil analytical results indicated the presence of PCE up to 2,900 mg/kg at 12 feet below grade. The MCP UCL for this compound in soil is 1,000 mg/kg.

In July 1998, one round of indoor air samples was collected from the basement, living room, and outside of the residential dwelling. Although the sampling results were reported to be below the reporting limits,



the reporting limits were above the Excess Lifetime Cancer Risk (ELCR) limits, the Allowable Ambient Limits (AALs), and the Reference Concentrations (RFCs). A clean layer of soil was applied to the northern portion of the site following assessment and response actions "to enhance on-site drainage and to reduce potential risk associated with direct contact." A wetland and small brook are located approximately 250 feet from the site. The LSP indicated that it is unlikely that the release has impacted this area based on visual observations and a review of historical soil and groundwater data.

In September 1998, DEP received a Class A-3 RAO Partial Statement supported by a Method 1 Risk Characterization and a RAM Completion Report. The risk characterization concluded that a condition of No Significant Risk had been achieved. In addition, the risk characterization concludes that any residuals will attenuate and diminish via natural bio-degradation processes.

Identified violations of MCP requirements include:

- a. failure to achieve a level of No Significant Risk (MCP Method 1 standards exceeded);
- b. failure to define the horizontal and vertical extent of contamination;
- c. failure to eliminate or control a source of contamination (the presence of DNAPL was not ruled out at this site);
- d. failure to provide scientifically valid and defensible data (reporting limits exceed applicable risk based standards);
- e. failure to evaluate hot spots;
- f. failure to properly identify and apply soil standards;
- g. providing false and misleading information (chlorinated solvents were not included in the waste profile description); and
- h. conducting a RAM without approval.

The identified AUL error noted that the AUL was recorded after the property owner sold the property and does not contain the signature(s) of the property owner(s) at the time of its recording. DEP requested the provision of additional existing information/data (if available) in support of the RAO, or retraction of the RAO and Termination of the AUL within 60 days.

(Fall River, 4-10429, NON-SE-00-3A-026, November 28, 2000)

3. Following an audit of a Class A-3 RAO Statement and AUL, DEP issued a NOAF/NON that requested retraction of the RAO and Termination of the AUL.

The site is located at a coeducation day school for nursery through grade 12 school children. The property is located in a residential area. In August 1992, a 1,000-gallon No. 2 fuel oil UST was removed from the property. A hole was observed in the base of the UST and petroleum-impacted soil and product were observed in the tank grave. Approximately 9 tons of soil were removed. Additional excavations were not conducted due to concerns about the structural integrity of the building. Post excavation samples were not collected from the limits of the excavation. Samples collected from the excavated soil indicated 22,170 mg/kg of TPH and 4,840 mg/kg TPH.

In October 1993, the site was listed as a Location to be Investigated (LTBI) and was assigned Release Tracking Number (RTN) 3-4605. Three monitoring wells were installed in 1993. In July 1994, DEP was notified that 22 inches of light non-aqueous phase liquid (LNAPL) had been measured in one of the monitoring wells at the site. DEP assigned RTN 3-11350 to the 72-hour reporting condition and approved an IRA for assessment and manual LNAPL recovery. Approximately 60 gallons of oil were recovered as a result of manual bailing. In July 1995, a Phase I and Tier Classification were submitted. The site was classified as Tier II.

In 1995, the IRA was converted to a RAM, which proposed to recover contaminated soil, groundwater, and LNAPL. The RAM included two test pit excavations. Approximately 26 tons of soil and 48 gallons of oil from a temporary recovery well installed in one of the test pits were recovered and removed. Approximately 400 gallons of oil were also recovered from an oil/water separator near the former UST. Two permanent recovery wells, equipped with passive oil recovery systems, were installed. Between 1995 and 1997, LNAPL was measured in the recovery wells and in certain monitoring wells, including 4.44 feet of LNAPL in well GP-14 during its final round of gauging.

In November 1997, a Class A-3 RAO and AUL including a Method 1 risk characterization were submitted. The groundwater was categorized as GW-2 only. Soil category S-2 was selected for paved areas (potentially accessible) of the site outside the school building from 0 to 15 feet.

In July 2000, DEP conducted a site inspection as part of the audit. During the inspection 1.01 feet of LNAPL was measured in well GP-14. Identified violations of MCP requirements include:

- a. failure to eliminate or control source of oil and/or hazardous material (OHM) (1.01 feet of LNAPL was measured at the site in 2000);
- b. failure to define the horizontal and vertical extent of contamination in all evaluated media;
- c. improper determination of groundwater and soil categories (GW-3 shall apply to all sites, and S-1 is applicable disposal sites located at schools attended by children, where the intensity of use of soil, which is not isolated, must be considered high);
- d. failure to identify and document an Exposure Point Concentration (EPC) for each OHM in each medium at each Exposure Point (groundwater EPCs were not developed for TPH and PAHs which were detected at concentrations exceeding UCLs and/or applicable Method 1 standards); and
- e. failure to use an AUL properly (AULs cannot be used to justify an exceedence of Method 1 or Method 2 standards).

DEP requested within 60 days retraction of the RAO, Termination of the AUL, submittal of a Tier II Classification Extension, and submittal of a Phase II Scope of Work.

(Brookline, 3-4605 & 3-11350, NON-NE-00-3A-145, November 30, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address:  
<http://www.state.ma.us/dep/bwsc/audits.htm>.

### **Enforcement - November 2000**

In November 2000, DEP BWSC issued 41 NONs, 2 Administrative Consent Orders with Penalty (ACOPs), 3

Administrative Consent Orders (ACOs), 2 Unilateral Administrative Order (UAO), and 2 Standard Penalty Assessment Notice (SPAN). Enforcement actions of particular significance in November include:

1. DEP entered into an Administrative Consent Order with Penalty (ACOP) with Rockland Industries of Middleboro, MA for failure to notify DEP within 72-hours that it had discovered more than ½ inch of a Non-Aqueous Phase Liquid (NAPL) in a monitoring well. A penalty of \$8,250 was assessed. (Middleboro, 4-0111, ACOP-SE-00-3P-006, November 7, 2000).
2. DEP issued a Standard Penalty Assessment Notice (SPAN) and Unilateral Administrative Order (UAO) to South Easton Crane Rental, Inc. of South Easton, MA for failure to comply with a Notice of Noncompliance. South Easton Crane Rental failed to submit a Response Action Outcome (RAO) or Tier Classification submittal by the one-year anniversary of a release at its property. The UAO orders South Easton Crane Rental, Inc. to comply with MCP submittal requirements. A penalty of \$7,000 was assessed. (Avon, 4-1188, SPAN-SE-00-3T-006, November 21, 2000).
3. DEP entered into an Administrative Consent Order (ACO) with Laurin's Service Center of Pittsfield for failure to conduct comprehensive response actions and submit applicable phased reports following submittal of a Tier Classification for a release at its property. Laurin's Service Center agreed to conduct and complete additional assessment work, evaluate for an immediate response action, and complete a Phase II and Phase III, or a Response Action Outcome by April 15, 2001. The agency suspended a \$7,000 penalty contingent on the stipulated work being completed. (Pittsfield, RTN 1-0545, ACO-WE-00-3006, November 30, 2000)

Additional information on DEP's current enforcement actions and policies can be found on our web page at the following address:

<http://www.state.ma.us/dep/enf/enforce.htm>.

### Helpful Hint

If a Potentially Responsible Party (PRP) elects to address a Release Condition as part of Comprehensive Response Actions planned for the Site that has already Tier Classified

under a different Release Tracking Number (RTN), you must notify DEP using the appropriate submittal before the one-year deadline of the Release Condition. If you can submit an Immediate Response Action (IRA) Completion Statement prior to the deadline date, the linkage should be noted on that transmittal form (BWSC-105). If an IRA Completion Statement either can not be submitted by the deadline date, or is not applicable, a Tier Classification Transmittal Form (BWSC-107) must be submitting noting the linkage. Future Comprehensive Responsive Actions must occur according to the deadlines applicable to the earliest RTN (the primary RTN). If an ongoing IRA is required to address the Release Condition, the appropriate IRA submittals are still required.

Revised January 17, 2001



---

## Audit and Enforcement Update December 2000

---

### Audit Findings for December 2000.

Contact:

[Thomas.Potter@state.ma.us](mailto:Thomas.Potter@state.ma.us)

List of Audit and Enforcement  
Updates

DEP BWSC issued 31 Notices of Audit Findings (NOAFs) in December 2000. Seventeen NOAFs did not require further assessment/fieldwork. Fourteen NOAFs found response actions lacked sufficient assessment/fieldwork. NOAFs of particular significance in December include:

[BWSC Home](#)

[Other DEP Enforcement  
Actions](#)

[MA DEP Home](#)

[Search](#)

1. Following an audit of a Class B-2 RAO Statement and Activity & Use Limitation (AUL), DEP issued a NOAF/NON that identified violations in the actions audited. Two AUL errors requiring correction were also identified.

The site is located at a parcel of land zoned for commercial/industrial use. At the time the RAO and AUL were prepared, a single, concrete block building occupied the site that has been used for the manufacture of electronic equipment since 1960. Prior to 1960, a machine company operated the site. Sanitary waste was discharged to an on-site septic system before connection to the municipal sewer system in the 1970s. A river is located approximately 750 feet to the northeast. In 1984, an assessment of the property was conducted by installing and sampling four monitoring wells. Analytical results documented the presence of metals, oil and grease, and 1,1-Dichloroethene (1,1-DCE) in groundwater.

In January 1987, the site was listed as a Location to be Investigated (LTBI). In February 1997, two additional soil borings were advanced and completed as monitoring wells. Soil and field filtered groundwater samples were collected from these locations. A field

filtered groundwater sample was collected from one of the remaining 1984 wells. Lead and petroleum were detected in soils up to 540 mg/kg and 1,100 mg/kg, respectively. Petroleum and elevated concentrations of metals were detected in groundwater, however, volatile organic compounds were below detection limits. The site was Tier Classified as Tier II in March 1997. Two additional rounds of field filtered groundwater samples were collected and analyzed for metals. Only 20 ug/l nickel was detected during each event.

In March 1998, a Class B-2 RAO and AUL including a Method 1 risk characterization, were submitted. Soil and groundwater EPCs were based on the February and March 1997 data, respectively. The 1984 data were not used due to "differing laboratory methods". The risk characterization concluded that contaminant concentrations in groundwater were below Method 1 GW-1 and GW-2 standards (DEP notes that GW-1 is not applicable to the site. Moreover, the applicable GW-3 Standards for certain metals of concern are lowest). An AUL was implemented on the site to maintain a condition of No Significant Risk due to elevated levels of petroleum and lead in soil. The AUL permits use of the area subject to the AUL for commercial and industrial uses. Maintenance of the existing pavement is required.

Identified violations of MCP requirements include:

- a. failure to employ Response Action Performance Standards (RAPS) while conducting response actions (1997 groundwater samples submitted for VOC analysis were field filtered and the reported detection limits for certain VOCs, including 1,1-DCE, were above the applicable Method 1, GW-2 Standards); and
- b. failure to accurately delineate the boundaries of a site, or portion of a site, identified in a RAO.

The summary of AUL compliance review indicated an error in defining the boundary of the restricted area, and an error in locating the pavement that is required to be maintained. DEP requested additional data demonstrating that EPCs for VOCs in groundwater are less than or equal to the applicable Method 1 Standards in support of the risk characterization, and a clear and accurate delineation of the disposal site boundaries for which the RAO applies.



(Newton, 3-0394, NON-NE-00-3A137, December 26, 2000)

2. Following an audit of an Immediate Response Action (IRA) and Class A-2 Response Action Outcome (RAO) Statement filed for a release of gasoline, DEP issued a Notice of Audit Finding (NOAF) Notice of Noncompliance (NON) that identified violations in the actions audited.

The site is located at a former gasoline station/auto repair facility. A 120-day release condition indicating a release of petroleum was reported to DEP in May 1998. In November 1998, during removal of three underground storage tanks (USTs), a 72-hour release condition was documented through soil headspace readings of greater than 100 parts per million (ppm) by photoionization detector (PID). Following this second release notification, a verbal IRA approval was granted for the removal of up to 200 cubic yards of impacted soil. A total of 14 tons of soil was excavated and removed.

Site assessment included the advancement of 11 soil borings and the installation of 5 shallow groundwater monitoring wells, the collection and analyses of 14 soil samples (9 subsurface samples, and 5 samples collected from the limits of the UST excavation), the collection and analysis of 11 groundwater samples, and the collection and screening of 2 soil gas samples.

In March 1999, DEP received an IRA Completion Statement and Class A-2 RAO Statement supported by a combined Method 1/Method 2 risk characterization. The soil Exposure Point Concentration (EPC) was developed using results from uncontaminated soil samples collected outside of the disposal site. The groundwater EPC was developed using results from three rounds of groundwater sampling. The result of one of the three rounds differs by at least 1 order of magnitude from the other two and from the calculated average.

Identified violations of MCP requirements include:

- a. failure to provide a conservative estimate of the EPCs in both soil and groundwater; and
- b. failure to characterize the nature of the oil and/or hazardous materials at a site and failure to meet the performance standard for a RAO



Statement (failure to investigate for the presence of ethylene dibromide at a gasoline release site).

DEP requested submittal of a revised RAO or retraction of the existing RAO.

(Springfield, 1-12513, December 27, 2000)

3. Following an audit of a Class B-2 RAO Statement and AUL, DEP issued a NOAF/NON that identified violations in the RAO actions audited.

The site is located at a commercial property improved by a one-story slab-on-grade concrete building that is currently vacant. The building has been used for dry storage, and office space. A 1,000-gallon fuel oil UST is located adjacent to the northeastern corner of the building.

In March 1993, tetrachloroethylene (PCE) was detected in groundwater at a concentration exceeding the applicable reportable concentration. Assessment of the site included the advancement of six soil borings, which were completed as groundwater monitoring wells. Groundwater was encountered at 8 to 13 feet below grade. Total Petroleum Hydrocarbon (TPH) was measured in soil up to 1,346 milligrams per kilogram (mg/kg). TPH was measured in groundwater up to 78,500 micrograms per liter (ug/L). Xylenes and PCE were measured in groundwater up to 6,700 ug/l and 11,400 ug/l, respectively.

The Method 1 GW-2 groundwater standard for PCE was modified using Henry's Law and the indoor air time weighted average (TWA) limit of 25 ppmv established by OSHA. However, a conversion factor of 0.001-liter/cubic meter instead of 1,000-liters/cubic meter was used in the calculation.

In January 1995, DEP received a Class B-2 RAO Statement supported by a Method 1 and Method 2 risk characterization. According to the RAO report, the possible sources of the petroleum contamination are the on-site fuel oil UST and the diesel fuel UST located on an abutting property. The PCE release was considered localized and most likely a one-time occurrence.

Identified violations of MCP requirements include:

- a. failure to collect sufficient data and information to support conclusions regarding the source, extent, and potential impact of the contamination;
- b. failure to identify all exposure points and exposure point concentrations;
- c. failure to properly conduct a Method 2 risk characterization;
- d. failure to properly develop GW-2 standards in a Method 2 risk characterization;
- e. failure to evaluate hot spots;
- f. failure to clearly state whether or not a condition of No Significant Risk has been achieved; and
- g. failure to accurately delineate the boundaries of a site identified in an RAO.

DEP requested retraction of the RAO, termination of the AUL, and submittal of a Tier Classification package within 60 days.

(Cambridge, 3-10698, NON-NE-00-3A118, December 28, 2000)

Additional information on the DEP's audit program can be found on our web page at the following address:

<http://www.state.ma.us/dep/bwsc/audits.htm>.

### **Enforcement - December 2000**

In December 2000, DEP BWSC issued 38 NONs, 4 Administrative Consent Orders with Penalty (ACOPs), and 1 Administrative Consent Order (ACO). Enforcement actions of particular significance in December include:

1. DEP issued a NOAF/NON and entered into an Administrative Consent Order with Penalty (ACOP) with Fleming Oil Corp. of Northfield, MA for failure to meet permit conditions in operating treatment systems and monitoring wells at a site that was contaminated with gasoline. DEP discovered the violations during a MCP audit. A penalty of \$25,000 was assessed. (Northfield, 1-0450, ACOP-WE-00-3A014, December 13, 2000).
2. DEP entered into an ACOP with ExxonMobil Corp. of Inwood, NY for failure to meet response action deadlines and reporting requirements during the assessment and cleanup of an oil release. A penalty of \$14,000 was assessed. ExxonMobil agreed to an enforceable schedule for completing its obligations.

(Pittsfield, 1-0539, ACOP-WE-00-3016, December 20, 2000).

3. DEP issued a NOAF/NON and entered into an ACOP with Massachusetts Electric Company of Northborough, MA for failure to conduct assessment and response actions with required regulatory approvals. DEP discovered the violations during a MCP audit. A penalty of \$15,000 was assessed. Massachusetts Electric Company agreed to perform supplemental site assessment work. (North Adams, 1-10694 & 1-10747, ACOP-WE-00-3A010, December 28, 2000).

Additional information on DEP's current enforcement actions and policies can be found on our web page at the following address:

<http://www.magnet.state.ma.us/dep/enf/enforce.htm>.

### **Audit Update**

In January 2001, DEP began conducting "Audit Inspections" as a function of the 21E Audit Program. The Audit Inspections are being conducted to increase DEP visibility in the field and to ensure remedial work is conducted in accordance with approvals. The Audit Inspections focus on the operation and maintenance of active remedial systems (Phase V and Remedy Operation Status), remedial work in progress relative to Release Abatement Measures (RAMs) and Immediate Response Actions (IRAs), as well as the operation and maintenance of conditions of Activity & Use Limitations (AULs). DEP will verbally notify Potentially Responsible Parties (PRPs) of the inspection within 24 hours. Although Licensed Site Professionals (LSPs) are not required to attend the inspection, a LSP may be present at the request of the PRP. A Notice of Audit Finding will be issued following the Audit Inspection.

---

Revised February 23, 2001